



**Public Meeting Room A  
Delta Administration Building  
7710 West Saginaw Highway  
Lansing, MI 48917**

**TOWNSHIP BOARD  
REGULAR MEETING  
AGENDA  
MARCH 4, 2013  
6:00 P.M.**

**I. CALL TO ORDER**

**II. OPENING CEREMONIES – Pledge of Allegiance**

**III. ROLL CALL – Members:** Supervisor Ken Fletcher, Clerk Mary Clark, Treasurer Howard Pizzo, Trustees Dennis Fedewa, Jeff Hicks, R. Douglas Kosinski, Karen Mojica

**IV. PRESENTATIONS AND PROCLAMATIONS**

**V. SET/ADJUST AGENDA**

**VI. PUBLIC HEARINGS**

**VII. COMMUNICATIONS**

**VIII. PUBLIC COMMENTS FOR ITEMS NOT ON AGENDA (*maximum two minutes*)**

**IX. INTRODUCTION OF ORDINANCES**

**X. PASSAGE OF ORDINANCES**

**XI. CONSENT AGENDA** – Anyone may request item/s to be pulled from the consent agenda for discussion. If left on the consent agenda, the items will be voted on by a roll call vote of the Board en masse. Then, the individual item/s will be discussed and voted upon.

**1. Bills and Financial Transactions**  
**\$8,105,612.94**

**2. Minutes**  
February 11, 2013 Committee of the Whole Minutes  
February 18, 2013 Regular Minutes

**XII. ITEMS REMOVED FROM CONSENT AGENDA FOR DISCUSSION**

**XIII. ITEMS ADDED TO AGENDA UNDER SECTION V. SET/ADJUST AGENDA**

**XIV. ITEMS OF BUSINESS**

**3. Municipal Utility Standards**

The Utility and Environmental Committee recommends that the Township Board approve the Municipal Utility Standards.

**4. Approval and Acceptance of Ambulance Bid**

The Fire Department recommends that that Township Board approve the bid submitted by Halt Fire, Inc. for two PL Custom Titan 170 ambulance modules.

**5. Notice of Intent to Issue Bonds**

The Manager's Office recommends that the Township Board adopt the notice of intent resolution for the issuance of Capital Improvement Bonds for water system improvements.

**XV. MANAGER'S REPORT**

**XVI. COMMITTEE OF THE WHOLE**

**6. Vending Ordinance, Mark Graham**

**7. Library Year-End Report, Mary Rzepcynski**

**8. Delta Patrol Year-End Report, Lt. Campbell**

**9. Fire Department Year-End Report, Chief Clark**

**10. Finance Year-End Report, Jeff Anderson**

**11. Clerk's Office, Year-End Report, Mary Clark**

**XVII. PUBLIC COMMENTS (*maximum five minutes*)**

**XVIII. ADJOURNMENT**

**CHARTER TOWNSHIP OF DELTA**

**MARY R. CLARK, TOWNSHIP CLERK**

Phone (517) 323-8500

*Individuals with disabilities requiring auxiliary aids or services who are planning to attend Township meetings or hearings should contact the Clerk's Office by writing or calling in advance (323-8500) to inform them of the date of the meeting/hearing that will be attended. Copies of minutes may be purchased or viewed in the Clerk's Office from 8 a.m. to 5 p.m., Monday through Friday.*

DELTA CHARTER TOWNSHIP  
FINANCE REPORT  
FOR TOWNSHIP BOARD MEETING  
03/04/2013

Disbursement requests listed on the following pages, totaling \$ 8,105,612.94 have been received and reviewed by the Manager, Finance Director, and Clerk. It is recommended that all listed vouchers be approved for payment.

Bond/Debt Payments	248,775.00
Investments	
Payroll & Related	306,131.35
Refunds	11,531.10
Tax Distributions	6,758,310.88
Vendor Claims	780,864.61
Total	\$ 8,105,612.94

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Ken Fletcher, Township Supervisor

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Mary Clark, Township Clerk

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Howard Pizzo, Township Treasurer

PAYABLES FOR DELTA CHARTER TOWNSHIP  
BOARD AGENDA 3/04/2013

Check Date	Check	Vendor Name	Description	Amount
Bank CHASE				
12/31/2012	CHASECC	CHASE CREDIT CARD	HOME DEPOT; SHELF FOR SUBSTATION	37.07
12/31/2012	CHASECC	CHASE CREDIT CARD	ITUNES REMOTE DESKTOP APP & PDF EXPERT	13.30
12/31/2012	CHASECC	CHASE CREDIT CARD	STAR TRUCK RENTALS	160.00
12/31/2012	CHASECC	CHASE CREDIT CARD	STATE MDOT PUBLICATION	15.70
12/31/2012	CHASECC	CHASE CREDIT CARD	BUDGET BOOKS FEDEX OFFICE	34.93
12/31/2012	CHASECC	CHASE CREDIT CARD	USPS PASSPORT POSTAGE	126.75
12/31/2012	CHASECC	CHASE CREDIT CARD	OFFICE SUPPLIES FOR CLERK'S DEPT	22.94
12/31/2012	CHASECC	CHASE CREDIT CARD	ELECTION PROMOTIONS EVERY VOTE COUNTS	287.95
12/31/2012	CHASECC	CHASE CREDIT CARD	ELECTION EXPENSES	170.15
12/31/2012	CHASECC	CHASE CREDIT CARD	PARKS & REC SUPPLIES	398.96
01/01/2013	CHASECC	CHASE CREDIT CARD	MRPA MEMBERSHIP	700.00
12/31/2012	CHASECC	CHASE CREDIT CARD	CONFERENCE EXPENSE	3.75
12/31/2012	CHASECC	CHASE CREDIT CARD	ITUNES & GOOGLE FOR APPS	58.97
12/31/2012	CHASECC	CHASE CREDIT CARD	STAMPRIITE,OFFICE SUPPLIES &VEHICLE MAINT	217.77
12/31/2012	CHASECC	CHASE CREDIT CARD	CARAFE, AMBULANCE INSP TOLL, SUPPLIES	91.19
12/31/2012	CHASECC	CHASE CREDIT CARD	STATION NO. 3 BEDROOM & KITCHEN REPAIRS	96.63
12/31/2012	CHASECC	CHASE CREDIT CARD	VOLT PLATE	16.98
12/31/2012	CHASECC	CHASE CREDIT CARD	FIRE TRUCK 417 SUPPLIES & PLOW SUPPLIES	154.45
01/01/2013	CHASECC	CHASE CREDIT CARD	EIUMC TNG REIMB BY HOMELAND SECURITY	258.42
12/31/2012	CHASECC	CHASE CREDIT CARD	MTA NEW OFFICIALS TRAINING	657.00
01/01/2013	CHASECC	CHASE CREDIT CARD	20 LICENSES FOR IPAD DROPBOXES & APPS	2,069.57
12/31/2012	CHASECC	CHASE CREDIT CARD	BLDG JACKET AND SAND FOR TRUCK WEIGHT	142.35
12/31/2012	CHASECC	CHASE CREDIT CARD	MLGMA MEMBERSHIP J.ROBERTS, R.WATKINS	165.00
12/31/2012	CHASECC	CHASE CREDIT CARD	EXPENSES FOR EMPLOYEE ACTIVITIES	50.00
12/31/2012	CHASECC	CHASE CREDIT CARD	PDF EXPERT FOR IPAD	10.59
12/31/2012	CHASECC	CHASE CREDIT CARD	MTA CONFERENCE R.WATKINS	279.00
01/01/2013	CHASECC	CHASE CREDIT CARD	MLGMA CONGFERENCE ROBERTS & WATKINS	600.00
12/31/2012	CHASECC	CHASE CREDIT CARD	LUGGAGE FOR ELECTION EQUIP	287.84



02/20/2013	281092	CAPITAL AREA UNITED WAY	SUPPORT FOR 2-1-1 SERVICES	2,000.00
02/20/2013	281094	CONSUMERS ENERGY	GAS/HEAT FOR 215 SNOW RD.	1,625.24
02/20/2013	281095	CONSUMERS ENERGY	GAS/HEAT SERVICE FOR VARIOUS ACCTS	4,927.80
02/20/2013	281101	EATON COUNTY TREASURER	TAX DISTRIBUTION	348,049.64
02/20/2013	281102	EATON INTERMEDIATE SCHOOLS	TAX DISTRIBUTION	73,905.79
02/20/2013	281105	GRAND LEDGE PUBLIC SCHOOLS	TAX DISTRIBUTION	142,398.76
02/20/2013	281107	GRANGER CONTAINER SERVICE,INC.	TRASH REMOVAL FOR VARIOUS ACCTS	1,244.18
02/20/2013	281108	HOLT PUBLIC SCHOOLS	TAX DISTRIBUTION	5,860.48
02/20/2013	281109	INGHAM INTERMEDIATE SCHOOLS	TAX DISTRIBUTION	6,872.88
02/20/2013	281113	LANSING COMMUNITY COLLEGE	TAX DISTRIBUTION	11,050.60
02/20/2013	281118	LANSING PUBLIC SCHOOLS	TAX DISTRIBUTION	5,272.89
02/20/2013	281122	PRO BUILD	REFUND DUPLICATE PMT CHK 629243 & 672481	142.34
02/20/2013	281125	STEAK N SHAKE OPERATIONS INC	REFUND W-TAX 040-016-100-290-00	1,260.78
02/20/2013	281126	ROUSE PROPERTIES	REFUND W-TAX PMT 040-011-400-110-00	7,757.84
02/20/2013	281127	NIXON ROAD HOLDING COMPANY LLC	REFUND OVERPMT W-TAX 040-009-100-037-00	532.67
02/20/2013	281128	APPLIED IMAGING	REFUND OVERPMT W-TAX 040-090-016-259-00	15.40
02/20/2013	281129	PACA, DENIS & PETRA	REF DUP W-TAX PMT LBX 040-072-860-060-00	278.65
02/20/2013	281130	SIGNATURE LAND DEVELOPMENT CORP	REFUND DUP PAY W-TAX 040-040-900-320-00	249.12
02/20/2013	281131	RICHARDS, THOMAS E	REFUND OVERPMT S-TAX 040-006-400-038-00	74.84
02/20/2013	281132	U.S. POSTMASTER	DELTA MAGAZINE SPRING 2013	2,600.00
02/20/2013	281133	WAVERLY COMMUNITY SCHOOLS	TAX DISTRIBUTION	468,349.77
02/20/2013	281134	ZAYO ENTERPRISE NETWORKS	PHONES & INTERNET AT TWP LOCATIONS	3,292.71
02/20/2013	281135	LORI BOLAN	CONTRACTUAL - AQUATICS	105.00
02/20/2013	281138	DBI BUSINESS INTERIORS	OFFICE SUPPLIES	1,797.38
02/20/2013	281139	EP IMAGES	VOTER ID ENVELOPES	470.24
02/20/2013	281147	MITCH SIMON	CONTRACTUAL - YOUTH BBALL	54.00
02/20/2013	281157	JACKLIN BLODGETT	CONTRACTUAL - AQUATICS	30.00
02/20/2013	281158	ROBERT BROWN	CONTRACTUAL - YOUTH BBALL	123.25
02/20/2013	281159	DEBRA DUFFY	CONTRACTUAL - AQUATICS	90.00
02/20/2013	281160	THOMAS FITZ	CONTRACTUAL - YOUTH BBALL	136.00
02/20/2013	281161	BRIANNA FLOWERS	CONTRACTUAL - YOUTH BBALL	57.37
02/20/2013	281162	MICHAELLA GRAHAM	CONTRACTUAL - YOUTH BBALL	125.37
02/20/2013	281163	CHELSEY HANNA	CONTRACTUAL - YOUTH BBALL	136.00
02/20/2013	281164	MARALYN HYDE	CONTRACTUAL - AQUATICS	220.00

02/20/2013	281165	CONNER KELLY	CONTRACTUAL - YOUTH BBALL	127.50
02/20/2013	281166	PAUL LAMACCHIA	CONTRACTUAL - YOUTH BBALL	210.37
02/20/2013	281167	CASSIE LAMACCHIA	CONTRACTUAL - YOUTH BBALL	63.75
02/20/2013	281168	LANSING BOARD OF WATER & LIGHT	ELECTRICITY FOR 7708 ADMINISTRATION DR	797.24
02/20/2013	281169	MARISA MALDONADO	CONTRACTUAL - YOUTH BBALL	56.00
02/20/2013	281170	CAROLYN MCARTHUR	CONTRACTUAL - AQUATICS	30.00
02/20/2013	281171	KAREN SCHULTZ	CONTRACTUAL - AQUATIC PAYROLL	135.00
02/20/2013	281172	JUDITH STURLEY	CONTRACTUAL - AQUATICS	100.00
02/27/2013	281173	ALLY FINANCIAL INC	PAYROLL WITHHOLDING	125.00
02/27/2013	281174	AT&T	TELEPHONE	182.19
02/27/2013	281175	BLUE CROSS BLUE SHIELD OF	DEC. HEALTH INSURANCE BALANCE FOR THELEN	4.89
02/27/2013	281176	CAPITAL AREA UNITED WAY	PAYROLL WITHHOLDING	6.00
02/27/2013	281177	CARQUEST - THE PARTS PLACE	VEHICLE PARTS	1,555.65
02/27/2013	281179	CITY OF LANSING	SANITARY SEWER 425 AGREEMENT - JAN	38,243.67
02/27/2013	281180	COMCAST	HIGH SPEED INTERNET, TV, PHONE LINES	303.08
02/27/2013	281181	CONSUMERS ENERGY	ELECTRIC & GAS FOR VARIOUS ACCTS	2,724.32
02/27/2013	281182	CONSUMERS ENERGY	GAS FOR 7708 ADMINISTRATION SUBSTATION	465.93
02/27/2013	281183	CONSUMERS ENERGY	GAS FOR VARIOUS ACCTS	2,063.52
02/27/2013	281184	EATON COUNTY TREASURER	TAX DISTRIBUTION	2,133,438.22
02/27/2013	281185	EATON INTERMEDIATE SCHOOLS	TAX DISTRIBUTION	450,644.28
02/27/2013	281186	EP IMAGES	WINDOW & RETURN ENV & OFFICE SUPPLIES	620.20
02/27/2013	281187	FIDELITY SECURITY LIFE INS/ EYEMED	EMPLOYEES' VISION COVERAGE	1,122.32
02/27/2013	281188	FIREFIGHTERS ASSO OF MICHIGAN	PAYROLL W/H UNION DUES	1,020.00
02/27/2013	281189	WEX BANK	FUEL PURCHASES FOR TWP. VEHICLES	12,148.43
02/27/2013	281190	BARBARA FOLEY	PAYROLL WITHHOLDING	650.00
02/27/2013	281191	BARBARA FOLEY	PAYROLL WITHHOLDING	170.13
02/27/2013	281192	GRAND LEDGE PUBLIC SCHOOLS	TAX DISTRIBUTION	721,863.52
02/27/2013	281193	HOLT PUBLIC SCHOOLS	TAX DISTRIBUTION	16,027.30
02/27/2013	281194	INGHAM INTERMEDIATE SCHOOLS	TAX DISTRIBUTION	10,216.31
02/27/2013	281195	LANSING BOARD OF WATER & LIGHT	ELECTRICITY FOR VARIOUS ACCTS	363.54
02/27/2013	281196	LANSING BOARD OF WATER & LIGHT	ELECTRICITY FOR VARIOUS ACCTS	2,645.09
02/27/2013	281197	LANSING COMMUNITY COLLEGE	TAX DISTRIBUTION	10,702.71
02/27/2013	281199	LOWES BUSINESS ACCOUNT	SUPPLIES & GOODS FOR VARIOUS DEPTS	1,121.21
02/27/2013	281200	LANSING PUBLIC SCHOOLS	TAX DISTRIBUTION	17,373.26

02/27/2013	281201	MEDLER ELECTRIC CO.	UV UNIT LAMP SOCKET & ELECTRICAL SUPPLIES	283.15
02/27/2013	281202	METLIFE	EMPLOYEES' DENTAL INSURANCE COVERAGE	14,464.00
02/27/2013	281203	MICHIGAN EDUCATION TRUST	PAYROLL WITHHOLDING	88.00
02/27/2013	281204	BRUCE MILES	REFUND OVERPMT ON PARKING TICKET	10.00
02/27/2013	281205	DAN MCCRACKIN	REFUND YOUTH SPORTS FEE	40.00
02/27/2013	281206	MICHAEL FAGGION	REFUND DAMAGE DEPOSIT	250.00
02/27/2013	281207	GEERT MULDER & SONS IINC	REFUND BLDG DEPT.	225.00
02/27/2013	281208	PHYSICIANS HEALTH PLAN	HEALTH INSURANCE COVERAGE JAN & FEB	256,379.42
02/27/2013	281209	PRODUCTION TOOL SUPPLY CO.	BIMETAL BLADE PACK	82.61
02/27/2013	281211	T.A. GENTRY SUPPLY, INC. - LANSING	WWTP PVC FITTINGS	16.44
02/27/2013	281212	KLINTWORTH, CATHLEEN P	REFUND WTAX OVERPAYMENT 040-045-600-170	111.00
02/27/2013	281213	PEARSON, DANIEL	REFUND OVERPMT WTAX 040-016-600-038-01	4.07
02/27/2013	281214	THRUN LAW FIRM P.C.	JANUARY STATEMENT OF LEGAL FEES	3,713.62
02/27/2013	281215	UPS	POSTAGE FOR WATER SAMPLE DELIVERY	28.81
02/27/2013	281216	UNITED STATES TREASURY	PAYROLL WITHHOLDING	300.00
02/27/2013	281217	UNUM LIFE INSURANCE COMPANY OF AMER	LIFE INSURANCE	6,077.33
02/27/2013	281218	MIDWEST TITLE	REFUND ON WATER ACCOUNT: 00002618	19.31
02/27/2013	281219	TRI COUNTY TITLE	REFUND ON WATER ACCOUNT: 00012200	4.66
02/27/2013	281220	TRI COUNTY TITLE	REFUND ON WATER ACCOUNT: 00021991	26.72
02/27/2013	281221	FISERV	REVERSAL SETTLEMENT ELECTRONIC PMT	28.70
02/27/2013	281222	JAMES AMBLER	WELL CAPPING REFUND INST#15877	500.00
02/27/2013	281223	WAVERLY COMMUNITY SCHOOLS	TAX DISTRIBUTION	2,353,657.73
02/27/2013	281224	WOLVERINE POWER SYSTEMS	FREIGHT FOR REGULATOR BOARD	8.50
03/06/2013	281225	ACTION APPLIANCE SERVICE	DRYER CHECK, PROBLEM IN VENTING	85.00
03/06/2013	281226	AIRGAS USA, LLC	OXYGEN TORCHES FOR SHOP	86.62
03/06/2013	281227	AMERICAN PLANNING ASSO.	NATIONAL & CHAPTER DUES C.GRUBA	240.00
03/06/2013	281228	ARROW UNIFORM	STATEMENT FOR UNIFORMS UTIL & PARKS	1,105.48
03/06/2013	281229	AUTO VALUE PARTS STORE	TIE DOWN SET & VEHICLE PARTS	76.36
03/06/2013	281230	BALL SEPTIC TANK SERVICE	GREASE TRAP	225.00
03/06/2013	281231	THE BANK OF NEW YORK MELLON TRUST	DELTA LIBRARY BONDS PAYMENT	248,775.00
03/06/2013	281232	BEACON COUNSELING SERVICES, LLC	STATEMENT FOR PSYCHIATRIC SERVICES	300.00
03/06/2013	281233	BOUND TREE MEDICAL LLC	MEDICAL SUPPLIES	2,839.97
03/06/2013	281234	BS&A SOFTWARE	ANNUAL SOFTWARE SUPPORT BS&A PROGRAMS	16,005.00
03/06/2013	281235	BSN SPORTS	SOFTBALL BLEACHER SUPPLIES	68.31

03/06/2013	281236	CARQUEST - THE PARTS PLACE	VEHICLE PARTS	66.49
03/06/2013	281237	CDW GOVERNMENT INC.	2 NEW SERVERS, LICENSING, COMPUTERS	25,898.11
03/06/2013	281238	CINTAS CORPORATION #725	BROWN TWP MATS	84.00
03/06/2013	281239	CLASSIC COFFEE CO.	COFFEE & SUPPLIES	304.00
03/06/2013	281240	COMMERICAL FLOORING SERVICES	CARPET REPLACEMENT FULL PMT CLERK'S	8,201.20
03/06/2013	281241	COMMERICAL FLOORING SERVICES	50% DOWNPAYMENT FLOORING ACCT'G	1,696.38
03/06/2013	281242	DATAMAIL SERVICES - POSTAGE ACCT	PROCESS,PRINT,FOLD,INSERT,MAIL W/S BILLS	3,797.37
03/06/2013	281243	DELAU FIRE SERVICES	INSPECTION PORTABLE FIRE EXT	1,424.00
03/06/2013	281244	DELL MARKETING L.P.	EMS SYSTEM	744.25
03/06/2013	281245	DELTA SIDE BUSINESS ASSO.	2013 COMMUNITY EXPO	2,000.00
03/06/2013	281246	DETROIT PUMP & MFG COMPANY	WWTP PUMP PARTS	380.45
03/06/2013	281247	DIESEL EQUIPMENT SALES & SERVICE	HEATER	149.99
03/06/2013	281248	DIGI-KEY 157843	PARTS FOR TWP SCADA	93.38
03/06/2013	281249	ROGER L. DONALDSON, AIA P.L.C.	PROFESSIONAL SERVICES ADM & LIB BLDGS	1,710.00
03/06/2013	281250	EATON COUNTY TREASURER	SHERIFF CONTRACTUAL	239,689.00
03/06/2013	281251	EATON COUNTY ROAD COMMISSION	TRAFFIC SIGNAL ENERGY FOR DEC	16.92
03/06/2013	281252	EATON COUNTY ROAD COMMISSION	MICHIGAN AVE EXT PROG BILL 9	2,419.28
03/06/2013	281253	EMERGENCY VEHICLE SERV., INC.	VEHICLE DOOR HANDLE	135.85
03/06/2013	281254	ETNA SUPPLY COMPANY	SPOOLS FOR VALVES & WATER METER PARTS	12,051.00
03/06/2013	281255	EXOTIC AUTOMATION & SUPPLY	VEHICLE PARTS	67.30
03/06/2013	281256	FACILITY SOLUTIONS, INC.	MAINTENANCE & BLDG SUPPLIES	950.95
03/06/2013	281257	FARM PLAN	EQUIPMENT MAINTENANCE	942.50
03/06/2013	281258	FASTENAL	MAINTENANCE PARTS	89.14
03/06/2013	281259	FERGUSON ENTERPRISES, INC.#934	DRYER VENT & URINAL SEAL	11.97
03/06/2013	281260	FIBERTEC ENVIRONMENTAL SERVICES	LAB TESTS WWTP	40.00
03/06/2013	281261	FLEETPRIDE	DOMELAMP FOR FIRE VEHICLE	90.35
03/06/2013	281262	FRONTIER	TELEPHONE	49.54
03/06/2013	281263	FRONT LINE MEDICAL	SERVICE CALL/REPAIR TO FIRE BLDG	189.79
03/06/2013	281264	FULTON ELECTRONIC SUPPLY	SCADA PARTS	22.46
03/06/2013	281265	GANNETT MICHIGAN NEWSPAPERS	ADVERTISING	276.00
03/06/2013	281266	GEODETIC DESIGNS, INC.	SURVEY & DIVISION OF 1127 MAYCROFT PROPERTY	650.00
03/06/2013	281267	GOVERNOR BUSINESS SOLUTIONS	PRINTER SERVICE	158.00
03/06/2013	281268	GRAND LEDGE FORD	BOLTS & SPACER VEHICLE MAINT	50.00
03/06/2013	281269	GUARDIAN ALARM	ALARM BILLING FOR FIRE STATIONS	60.00

03/06/2013	281270	HENDERSON GLASS, INC.	OVERHEAD DOOR GLASS REPLACEMENT	157.11
03/06/2013	281271	HOLBEN PROFESSIONAL EH SERVICES	CERTIFIED OP TRNG "DISINFECTION BASICS"	300.00
03/06/2013	281272	ICON SIGN & DESIGN, INC.	VINYL ORDER OVERLAY	25.00
03/06/2013	281273	IMAGE TREND, INC.	RESCUE BRIDGE DASH SUPPORT FOR FIRE	1,660.00
03/06/2013	281274	J&B MEDICAL SUPPLY, INC	MEDICAL SUPPLIES	594.13
03/06/2013	281275	J-MAX TRANSPORTATION, INC.	BALL DIAMOND POWDER & PARKS EQUIP	1,540.87
03/06/2013	281276	JOHNNY MACS SPORTING GOODS	BBALL PROGRAM WHISTLES & LANYARDS	30.00
03/06/2013	281277	KENDALL ELECTRIC, INC.	SERIAL CABLES FOR TWP SCADA PROJECT	475.55
03/06/2013	281278	LANSING BOARD OF WATER & LIGHT	LAB SERVICES WWTP	431.00
03/06/2013	281279	LANSING BOARD OF WATER & LIGHT	WATER METER READINGS	565.12
03/06/2013	281280	LANSING REGIONAL CHAMBER	MEMBERSHIP K.FLETCHER	380.00
03/06/2013	281281	LANSING STATE JOURNAL	MARCH PAPER SUBSCRIPTION	24.56
03/06/2013	281282	LANSING COMMUNITY COLLEGE	CLASSES FIRE PERSONNEL	69.00
03/06/2013	281283	LEWIS G. BENDER	FACILITATION SERVICES 2 DAYS & MILEAGE	4,321.20
03/06/2013	281284	LEXISNEXIS OCC. HEALTH SOLUTIONS	DRUG TESTS	81.00
03/06/2013	281285	LOOMIS	ARMORED SERVICE FOR ACCT'G DEPOSITS	301.52
03/06/2013	281286	LOUIS PADNOS IRON & METAL CO.	STEEL FOR PARKS BLEACHERS & EQUIP MAINT	576.00
03/06/2013	281287	MAMC	MEMBERSHIP RENEWAL	35.00
03/06/2013	281288	MCGUIRE'S RESORT	2 NIGHT LODGING FOR PIAM CONFERENCE	168.00
03/06/2013	281289	MEDICAL MANAGEMENT SYSTEMS OF	AMBULANCE FEES	6,248.92
03/06/2013	281290	MENARDS	PARTS FOR SNOW BOOSTER	7.45
03/06/2013	281291	MICHIGAN ASSOCIATION OF PLANNING	TRANSPORTATION BONANZA REGISTRATION	55.00
03/06/2013	281292	MICHIGAN COMPANY, INC.	BLDG MAINT SUPPLIES	140.56
03/06/2013	281293	MICHIGAN ELECTION RESOURCES	ELECTION SUPPLIES	396.05
03/06/2013	281294	MICHIGAN ENERGY OPTIONS	SPONSORSHIP FOR TRI CTY LEADERSHIP	250.00
03/06/2013	281295	MICHIGAN PIPE & VALVE	HARDWARE & GASKET SARATOGA VALVES	92.50
03/06/2013	281296	MICHIGAN SURVEYORS SUPPLY	TAPE, FLAGGING, PAVING	128.80
03/06/2013	281297	RYAN MORRISSEY	REIMBURSE INCIDENT SAFETY OFFICER CONF	50.00
03/06/2013	281298	MUNICIPAL SUPPLY CO.	HYDRANT PARTS	76.25
03/06/2013	281299	MYERS PLUMBING & HEATING, INC.	EJECTOR PUMP MAINT/REPAIR ADMIN BLDG	1,232.50
03/06/2013	281300	NORTH GRAND RIVER COOPERATIVE	DELTA FIRE MEDICAL LINENS	734.40
03/06/2013	281301	CANON SOLUTIONS AMERICA, INC.	COPIER MAINTENANCE & SUPPLIES	3,954.96
03/06/2013	281302	OVERHEAD DOOR CO OF LANSING	MISC SERVICE MATERIAL TO NORTHWEST DOOR	521.59
03/06/2013	281303	PIAM	CONFERENCE REGISTRATION 4/10-4/12	210.00

03/06/2013	281304	PLUMMER'S ENVIRONMENTAL SERVICES	INSPECT 13 MANHOLES W.WILLOW HWY	2,275.00
03/06/2013	281305	PRO COMM, INC.	RADIO REPAIRS	243.50
03/06/2013	281306	PURITY CYLINDER GASES, INC	MEDICAL GAS	432.43
03/06/2013	281307	PVS TECHNOLOGIES, INC.	FERRIC CHLORIDE SOLUTION WWTP	5,207.01
03/06/2013	281308	R&R FIRE TRUCK REPAIR	SUPER AUTO EJECT VOLT AC15 & PARTS	281.37
03/06/2013	281309	SAFETY SERVICES, INC.	SAFETY EQUIPMENT	159.21
03/06/2013	281310	SANDERSON FITNESS REPAIR	FITNESS EQUIP CHECK AT FIRE STATIONS	250.00
03/06/2013	281311	SHERWIN-WILLIAMS	PAINT, BRUSHES, BLDG SUPPLIES	551.15
03/06/2013	281312	SOIL & MATERIALS ENGINEERS INC	HUNTINGTON AND BROADBENT PROJECTS	4,890.00
03/06/2013	281313	STAPLES BUSINESS ADVANTAGE	BLDG MAINT SUPPLIES	255.96
03/06/2013	281314	STATE OF MICHIGAN	DEQ ASSET MGMNT SEMINAR SERIES IN GR	140.00
03/06/2013	281315	STATE SPRING ALIGNMENT & BRAKE	SPRING REPAIR VACTOR & EQUIP	2,976.48
03/06/2013	281316	CHANNYN STREETER	REIMBURSE CONFERENCE EXPENSE	14.83
03/06/2013	281317	SUNDANCE CHEVROLET	VEHICLE PARTS	302.13
03/06/2013	281318	TIME EMERGENCY EQUIPMENT	TURNOUT COATS & OTHER FOR FIRE	11,555.82
03/06/2013	281319	TOTAL ENERGY SYSTEMS, LLC	SNOW BOOSTER TESTS AND WORK	648.75
03/06/2013	281320	TOTAL PLASTICS, INC.	BLDG MAINTENANCE SUPPLIES	1,295.17
03/06/2013	281321	VERTALKA & VERTALKA, INC.	PROF SERVICE 040-010-400-111 APPRAISAL	6,500.00
03/06/2013	281322	VIDACARE CORPORATION	STERILIZED MEDICAL NEEDLE SETS FOR AMB	1,199.99
03/06/2013	281323	RICHARD WATKINS	REIMBURSE MILEAGE FOR CONFERENCE	117.52
03/06/2013	281324	WEBB CHEMICAL SERVICE CORP.	HYDROCHLORIC ACID WWTP	520.00

PAYABLES	7,801,840.72
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PAYROLL	303,772.22
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**GRAND TOTAL: \$ 8,105,612.94**

**CHARTER TOWNSHIP OF DELTA**  
Public Meeting Room B  
Delta Township Administration Building  
7710 West Saginaw Highway  
Lansing MI 48917

**TOWNSHIP BOARD COMMITTEE OF THE WHOLE MINUTES**  
**MONDAY, FEBRUARY 11, 2013**

**I. CALL TO ORDER –**

Clerk Clark called the meeting to order at 6:04 p.m.

**II. ROLL CALL –**

Members Present: Supervisor Kenneth Fletcher (arrived 6:09 p.m.), Treasurer Howard Pizzo, Clerk Mary Clark, and Trustees Jeff Hicks, Dennis Fedewa, Karen Mojica and R. Douglas Kosinski

Members Absent: None

Others Present: Manager Richard Watkins, Deputy Manager Jen Roberts, Community Development Director Mark Graham, Assessing Director Brian Telen, Utility Director Tom Morrissey, Parks Recreation and Cemeteries Director Markus Kirkpatrick and Finance Director Jeff Anderson

TRUSTEE FEDEWA MOVED SUPERVISOR FLETCHER BE EXCUSED FROM COMMENCEMENT OF THE FEBRUARY 11, 2013 COMMITTEE OF THE WHOLE MEETING. TRUSTEE HICKS SUPPORTED THE MOTION. MOTION PASSED 6-0.

**III. SET/ADJUST AGENDA – None.**

**IV. PUBLIC COMMENT – None.**

**V. COMMUNICATONS – None.**

**VI. PRESENTATIONS – None.**

**VII. MANAGER’S REPORT –**

Manager Watkins continues to meet with EATRAN in regards to regional

transportation as well as improvement in Delta Township. A meeting was held last week with CATA. Discussions are going well and hopefully some proposals will be coming forward over the next couple of months.

Deputy Manager Roberts and Manager Watkins met with the Sheriff and Undersheriff recently along with Lt. Campbell talking about several issues to improve working relationships and improve communication through computer systems including statistical information. Additional discussion took place regarding the contract for services which is up in 2014.

## **VIII. DEPARTMENT REPORT –**

### **1. Assessing Department – Brian Thelen**

Assessed values for 2013 are flat and as a result that there should be some increases in property values coming in 2014. The department was down one full-time staff member the majority of the 2012 calendar year. The website has a lot of activity and saves the staff a lot of additional telephone calls. There are 71 cases currently pending with the tax tribunal. They are all from 2011 and 2012 appeals as the 2010 appeals have all been resolved. Appeals have gradually declined since 2009 and the hope is that trend will continue. 2013 Assessing Change Notices will be sent soon.

### **2. Utility Department – Tom Morrissey**

The most water purchased and distributed ever was in 2012. Temperatures and the dry season had an impact. Fire hydrant maintenance increased last year. Staking for Miss Dig took place at a consistent rate. The radio read program has 100 units left to be installed which should be completed by the end of this week which will be about two years ahead of schedule.

Sewer treatment was down for 2012. Bio-solid disposal expenses took a significant increase in 2012. Other options are being explored to reduce these costs.

Vehicle maintenance has been resumed by the utility department. A mechanic has been hired full time. There are about 65-68 general vehicles plus the ambulances which are part of the maintenance fleet.

### **3. Community Development – Mark Graham**

The Community Development Department has four divisions.



Building permits were up in 2012 but this is reflective of several big, non-residential projects such as Fed Ex, Hampton Inn, and Blue Cross Blue Shield/ Auto Owners. Single family permits remained low, below 20. Remodels and renovations are up and inspections are therefore up. Blight complaints have remained the same. Registered rental units are increasing as a result of homes that have not sold. The second, three-year rental inspection cycle was recently completed. A portion of staff time is spent keeping licenses current and attending continuing education. Additionally staff has been performing improvements around the township such as electrical work.

Rezoning applications, special land use permits are down which is reflective of the slower economy. Zoning enforcement actions declined in 2012 likely in part of the reduction in foreclosed properties. Many complaints were received as houses were vacated under foreclosure. Site plan reviews increased in 2012 and electronic scanning has been stagnant in 2012 due to staff issues.

The Comprehensive Plan was reviewed and modified. This was a major accomplishment for the Department. The vending ordinance is under revision. The utility ordinance is being reviewed to address people dumping unwanted dirt. Home Occupation Permits have been rescinded that were no longer in operation. The fire works law has been reviewed and the law changes have been discussed. This issue may return to the Board in the future.

The Engineering Division filled in gaps along sidewalks to complete sidewalk routes. No pathway development took place in 2012 but there are plans for further pathway expansion in 2013. Site plan reviews increased. Project hours remained the same and the capping of abandoned wells decreased. There are currently about 30 wells to be capped and those remain on a waiting list.

Gary Arnold rewrote the Municipal Utility Standards from 1975. This will be coming to the Utility Committee for review and then on to the Board. The first year of the five-year sidewalk repair program began. The DEQ Storm Water Audit was completed.

Economic Development continues with retention visits and completed about 50. Mr. Reed is thorough with his visits and follow-up. Retention visits are not inclusive of the drop-in visits which are about 10 per week. The Safe Routes to School Grant has been Ed's responsibility and of the six easements needed, one was obtained. The grant expires in August or September of 2013. This will be coming before the Board in the near future regarding potential court action.

#### **4. Parks, Recreation, & Cemeteries – Markus Kirkpatrick**

The Parks Recreation & Cemeteries Master Plan was completed in September 2012. There are approximately 20-30 special events held each year by the Department. Routine safety inspections and maintenance and repairs are conducted in the parks and pathways this time of year. Rental fees for the halls and grounds have increased in 2012.

Delta has expanded some of the recreational programs to include 3 and 4 year olds and found a large market that was untapped. Flag football and adult volleyball programs have increased in participation. Swimming has declined but this is often related to the summer Olympic schedule and star performances like Michael Phelps.

The recycling center is looking to increase the items accepted, hoping to add one or two items each year. Cooperation continues with the Eaton County Department of Resource Recovery to offer services and grant funding. Special events include the annual spring clean up and the fall de-leafing program.

The cemeteries had 54 burials in 2012. The count is down from prior years and this could be a direct result of the economy.

## **5. Accounting Department – Jeff Anderson**

The Accounting Department implemented new processes in 2012. The utility billing took a marketing approach to encourage people to sign up for electronic billing. Each individual that participates saves the Township \$9 annually. Over 800 people are currently participating and the Department would like to double that in 2013. There is no longer any meter reading by the Board of Water and Light and no more estimates in billing. A high usage detection will be in place soon to notify users of unusually high activity in water consumption.

The 2000 bonds were refunded to reduce the interest rate to a savings of greater than \$300,000 for the remaining eight years of that bond. The Department changed credit card processing companies and saw an additional savings in this area.

The investment portfolio earned 1.2% last year.

Other items from 2012 include the health insurance committee and the change to PHP, the Looking Glass Agreement and implementing accounting to track the agreement is in place, the union contract negotiations with the fire department were completed, the accounts payable approval has gone electronic and approximately 70% of the departments are currently participating. The year end numbers will be available in March and brought to the Board for review at that

time.

Board members are encouraged to have screen protectors installed on their Ipads. Board pictures are scheduled for Monday at 5:00p.m. The Delta Side Expo is March 2nd at the Lansing Mall from 10am – 3pm. The Township will have a booth as a leading sponsor of the event. Please contact Jen Roberts if you are interested in staffing the booth and what times you would be available.

## **IX. ITEMS OF DISCUSSION –**

### **1. Comprehensive Plan**

Mark Graham is available to answer questions following board member review of the Comprehensive Plan.

Trustee Fedewa inquired about Saginaw Highway at the west end of the Township and looked for clarification regarding low density residential and agricultural and the zoning district versus the plan references. The plan looks 20 years to the future and the zoning district speaks for today.

Additional discussion took place regarding:

- Adjacent communities and their comprehensive plan meeting Delta's comprehensive plan on the boundaries;
- Township wide high speed internet services;
- Potential zoning changes and the results from expanding sewer and/or water services;
- The coordination of the Township's other plans such as the Parks Recreation Master Plan, the Non-motorized Transportation Plan and the like; and
- The process regarding accepting and/or not accepting the plan.

## **X. ADJOURNMENT**

Supervisor Fletcher adjourned the meeting at 7:53 p.m.

CHARTER TOWNSHIP OF DELTA

MARY R. CLARK, CLERK

KENNETH FLETCHER, SUPERVISOR

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Board Materials\Board Meetings\Minutes\February 11, 2013 Committee of the Whole

Minutes Approved:

**CHARTER TOWNSHIP OF DELTA**  
Public Meeting Room A  
Delta Township Administration Building  
7710 West Saginaw Highway  
Lansing MI 48917

**TOWNSHIP BOARD REGULAR MEETING MINUTES FOR  
MONDAY, FEBRUARY 18, 2013**

**I. CALL TO ORDER**

Supervisor Kenneth Fletcher called the meeting to order at 6:00 p.m.

**II. OPENING CEREMONIES – Pledge of Allegiance**

**III. ROLL CALL**

Members Present: Treasurer Howard Pizzo, Trustee Dennis Fedewa, Trustee Karen Mojica, Trustee Doug Kosinski Trustee Jeff Hicks, Clerk Mary Clark, and Supervisor Kenneth Fletcher

Members Absent: None

Others Present: Community Development Director Mark Graham, Assistant Planner Chris Gruba, Planning Commissioner Pat Gabriel, Township Engineer Gary Arnold, Lt. Jeff Campbell, Fire Chief John Clark, Township Manager Richard Watkins, and Deputy Manager Jenny Roberts

**IV. PRESENTATIONS AND PROCLAMATIONS**

**1. Bob Robinson, Eaton County Treasurer**

Treasurer Robinson provided an overview of activities he had been undertaking since he took office. He noted that a few operations of the department had been updated and simplified which resulted in a savings of \$17,000. Mr. Robinson noted that he was working on improving communications with local governments and would be organizing a “Best Practices” exchange with Delta in an effort to explore new ways of improving operations. He announced that the department’s website had been reorganized so that additional information would be available to taxpayers, as well as provide a resource center for local governments. He noted that more emphasis would be placed on mortgage and tax foreclosure prevention and that his office was currently participating in a Tax Foreclosure Assistance Program that focused on preventing foreclosure and assisting individuals facing foreclosure or unemployment.

**County Commissioner Howard Spence**

Mr. Spence noted that as County Commissioner representing District #4, he welcomed any feedback from the Board that would help him better understand their concerns and interests. Mr. Spence noted that he would also appreciate the Board's feedback on a website he developed that he felt could serve as a useful resource of information on issues he and his constituents were interested in. Mr. Spence noted that he was a strong believer in diversity and making sure that county government focused on making sure the workforce reflected the residents and the people who visited the community. Mr. Spence said another one of his goals was to explore ways to improve public transportation within the Township.

**V. SET/ADJUST AGENDA**

TRUSTEE KOSINSKI MOVED THAT THE AGENDA BE APPROVED AS SUBMITTED.

TREASURER PIZZO SUPPORTED THE MOTION. MOTION PASSED 7-0.

**VI. PUBLIC HEARINGS - None**

**VII. COMMUNICATIONS – None**

**VIII. PUBLIC COMMENTS FOR ITEMS NOT ON AGENDA - None**

**IX. INTRODUCTION OF ORDINANCES – None**

**X. PASSAGE OF ORDINANCES**

2. **Amendments to the Delta Township Code of Ordinances** – Lt. Campbell recommends that the Township Board adopt an amendment to the Delta Township Code of Ordinances Article 1 of Chapter 28, which would establish curfews for minors.

TRUSTEE KOSINSKI MOVED THAT THE DELTA TOWNSHIP BOARD ADOPT AN AMENDMENT TO THE DELTA TOWNSHIP CODE OF ORDINANCES ARTICLE I OF CHAPTER 28. THIS PROPOSED ORDINANCE WOULD ESTABLISH CURFEWS FOR MINORS, AS DEFINED IN SECTION 28-95 IN THE DELTA TOWNSHIP CODE OF ORDINANCES. FURTHER, THE TOWNSHIP CLERK IS HEREBY DIRECTED TO PUBLISH A NOTICE OF ADOPTION IN LOCAL NEWSPAPERS, AND THE AMENDMENTS SHALL BECOME EFFECTIVE UPON PUBLICATION.

TRUSTEE FEDEWA SUPPORTED THE MOTION.

ROLL CALL:

AYES: TRUSTEE KOSINSKI, TRUSTEE HICKS, TRUSTEE  
MOJICA, TREASURER PIZZO, CLERK CLARK, TRUSTEE  
FEDEWA, AND SUPERVISOR FLETCHER

NAYS: NONE

ABSENT: NONE

MOTION PASSED 7 TO 0.

**ORDINANCE NO. 28-95**

AN ORDINANCE OF THE CHARTER TOWNSHIP OF DELTA, EATON COUNTY, MICHIGAN, PROVIDING THAT THE CODE OF ORDINANCES, CHARTER TOWNSHIP OF DELTA, MICHIGAN, BE AMENDED BY ADDING A NEW SECTION 28-95 ("CURFEW FOR MINORS") TO ARTICLE I ("IN GENERAL") OF CHAPTER 28 ("OFFENSES") TO ESTABLISH CURFEWS FOR MINORS; REPEAL ORDINANCES AND PORTIONS OF ORDINANCES INCONSISTENT WITH THIS ORDINANCE; AND PROVIDE AN EFFECTIVE DATE HEREOF.

THE TOWNSHIP BOARD OF TRUSTEES FOR THE CHARTER TOWNSHIP OF DELTA HEREBY ORDAINS:

1. Article I ("In General") of Chapter 28 ("Offenses") is hereby amended as follows:

**SECTION 28-95. CURFEW FOR MINORS.**

- A. No minor under the age of 12 years shall loiter, idle or congregate in or on any public street, highway, alley or park between the hours of 10 o'clock p.m. and 6 o'clock a.m., unless the minor is accompanied by a parent or guardian, or some adult delegated by the parent or guardian to accompany the child.
- B. A minor under the age of 16 years shall not loiter, idle or congregate in or on any public street, highway, alley or park between the hours of 12 midnight and 6 a.m., subject to the exceptions set forth in subsection (C) hereof.
- C. Exceptions. The following shall constitute valid exceptions to subsection B above:
  - 1) Where the minor is accompanied by a parent or guardian or some adult over twenty-one years of age delegated by the parent or guardian to accompany the minor child for a designated period of time and for a specific purpose within a specified area.

MONDAY, FEBRUARY 18, 2013 TOWNSHIP BOARD MINUTES – REGULAR MEETING  
CHARTER TOWNSHIP OF DELTA

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- 2) Where the minor is on the sidewalk of his or her residence, or on the sidewalk of either next door neighbor; however, neighbor complaints or objections may invalidate this portion of this exception if the minor is on the neighbor's sidewalk.
  - 3) Where the minor is returning home by a direct route from and within thirty minutes of the termination of a school activity or an activity of a religious organization or other association.
  - 4) Where the minor is a resident of another jurisdiction or a resident of the Charter Township of Delta and is in a motor vehicle with parental consent and is traveling through the Township.
  - 5) Operating a motor vehicle within the scope of his or her license.
  - 6) Where the minor is engaged in the course of lawful employment or for a period of thirty minutes before or after work, while traveling a direct route between such place of employment and his or her residence.
2. Aiding and Abetting. Any person of the age of 16 years or over assisting, aiding, abetting, allowing, permitting or encouraging any minor under the age of 16 years to violate the provisions of subsections A and B hereof is guilty of a misdemeanor and subject to a fine as set by Township resolution.
3. Minor Arrest; Notice to Parent/guardian and Court; Subsequent Offense.
- A. Law enforcement officers are vested with authority to arrest, without warrant, any minor within his or her presence violating any provision of this section. If such arrest is the minor's first offense, the officer shall transport the minor to his or her residence and place the minor in the charge of the minor's parent or legal guardian. If the minor's parent or legal guardian is not on the premises, the minor may be left in the care and charge of a family member over the age of 18 years. If no such parent, legal guardian, or person having custody of such minor or member of the family over 18 years of age is present when the minor is returned, the officer shall make disposition as directed by a judge or agent of the county juvenile court.
  - B. Whenever any minor is arrested under this section, written notice shall be given to the parent, legal guardian or other person having legal care or custody of such minor. Notice will be served by personal service, or by leaving a copy thereof at his or her place of residence and informing any person upon the premises of suitable age and understanding of the contents thereof. Such notice shall be in writing.
  - C. When any minor is arrested for violating this section, the arresting officer shall report, in writing, to the prosecutor and judge of the probate/juvenile court of the Eaton County. Said report will include the name of such minor, the dates of the



offense and arrest and the name of the person upon whom the notice provided for in this section was served. A copy of the report will be on file at the Sheriff's Office.

- D. Whenever a minor is arrested a second time or for a subsequent violation of this section, the arresting officer shall seek a petition against such minor in the probate/juvenile court. In addition; the arresting officer may seek a warrant for any parent, legal guardian or other person having legal custody of such minor who permitted, aided or abetted the minor to violate this section.
- E. No parent or legal guardian of any minor shall fail to exercise reasonable control over such minor, which failure results in the minor committing any violation of this section, criminal act, or allow or encourage any minor to commit any criminal act. Upon second or subsequent violation of Section 28-95, proof that a minor was upon or in any public street, highway, alley, park, vacant lot or other unsupervised public place in violation of this section.

- 3. **Amendments to the Delta Township Code of Ordinances** – Lt. Campbell recommends that the Township Board adopt amendments to the Delta Township Code of Ordinances Article III of Chapter 28. This amendment would make it a misdemeanor offense to expectorate, urinate, or defecate in public spaces.

Jim Schweitzer, 11351 Nixon Road, expressed concerns with the enforceability of expectorates and used the example of runners participating in a race that frequently spit during the race.

Supervisor Fletcher indicated that that type of situation was not what the Board was necessarily looking for in terms of enforcement, but rather the proposed amendment would provide law enforcement the latitude of determining whether there was a problem or not.

CLERK CLARK MOVED THAT THE DELTA TOWNSHIP BOARD ADOPT AN AMENDMENT TO THE DELTA TOWNSHIP CODE OF ORDINANCES ARTICLE III OF CHAPTER 28. THIS PROPOSED ORDINANCE WOULD MAKE IT A MISDEMEANOR OFFENSE TO EXPECTORATE, URINATE, OR DEFECATE IN PUBLIC SPACES OR PRIVATE PLACES WHILE SUCH ACT IS OPEN TO THE PUBLIC VIEW AS DEFINED IN SECTION 28-94 IN THE DELTA TOWNSHIP CODE OF ORDINANCES. FURTHER, THE TOWNSHIP CLERK IS HEREBY DIRECTED TO PUBLISH A NOTICE OF ADOPTION IN LOCAL NEWSPAPERS AND THE AMENDMENTS SHALL BECOME EFFECTIVE UPON PUBLICATION.

TRUSTEE MOJICA SUPPORTED THE MOTION.

Trustee Hicks said he understood Mr. Schweitzer's concerns and that he had also recognized enforcement as a problem when the amendment was introduced by the Board, however, Lt. Campbell had explained the reasoning behind the

proposed amendments and the fact that it was one more tool law enforcement could use that presently didn't exist. Mr. Hicks said he was confident that law enforcement would use good discretion when implementing the ordinance.

Treasurer Pizzo suggested that Lt. Campbell provide the Board with a periodic status report on the amendments before the Board this evening that would provide information on the number of violations that had occurred and the specifics of the events.

Trustee Kosinski agreed with Treasurer Pizzo that periodic monitoring would be beneficial to alleviate concerns anyone may have.

ROLL CALL:

AYES: CLERK CLARK, TRUSTEE MOJICA, TREASURER PIZZO,  
TRUSTEE KOSINSKI, TRUSTEE FEDEWA, TRUSTEE HICKS,  
AND SUPERVISOR FLETCHER

NAYS: NONE

ABSENT: NONE

MOTION PASSED 7 TO 0.

**ORDINANCE NO. 28-97**

AN ORDINANCE OF THE CHARTER TOWNSHIP OF DELTA, EATON COUNTY, MICHIGAN, PROVIDING THAT THE CODE OF ORDINANCES, CHARTER TOWNSHIP OF DELTA, MICHIGAN, BE AMENDED BY ADDING A NEW SECTION 28-97 ("UNLAWFUL EXPECTORATION, URINATION AND DEFECATION") TO ARTICLE III ("OFFENSES AGAINST PROPERTY") OF CHAPTER 28 ("OFFENSES") TO MAKE UNLAWFUL PUBLIC EXPECTORATION, URINATION AND DEFECATION; REPEAL ORDINANCES AND PORTIONS OF ORDINANCES INCONSISTENT WITH THIS ORDINANCE; AND PROVIDE AN EFFECTIVE DATE HEREOF.

THE TOWNSHIP BOARD OF TRUSTEES FOR THE CHARTER TOWNSHIP OF DELTA HEREBY ORDAINS:

1. Article III ("Offenses Against Property") of Chapter 28 ("Offenses") is hereby amended as follows:

**SECTION 28-97. UNLAWFUL EXPECTORATION, URINATION AND DEFECATION.**

Any person who violates this Section shall be guilty of a misdemeanor subject to imprisonment and a fine as established in Section 1-6.1(b).

MONDAY, FEBRUARY 18, 2013 TOWNSHIP BOARD MINUTES – REGULAR MEETING  
CHARTER TOWNSHIP OF DELTA

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Except where restroom facilities are used for such purposes, it shall be unlawful for a person to expectorate, urinate or defecate:

- A. While present upon, or in any: public property, street, sidewalk, parking lot/structure, alley, park, public transportation, or any other place open to the public.
- B. While present upon, or in any private property while such act is open to the public view.
- C. While present upon, or in any private property of another without authority or permission of the owner of such premises or without authority or permission of the lawful occupants.

4. **Amendments to the Delta Township Code of Ordinance** – Lt. Campbell recommends that the Township Board adopt an amendment to the Delta Township Code of Ordinances Article III of Chapter 28. This amendment would make it a misdemeanor offense to be on the property of another without permission.

TRUSTEE MOJICA MOVED THAT THE DELTA TOWNSHIP BOARD ADOPT AN AMENDMENT TO THE DELTA TOWNSHIP CODE OF ORDINANCES ARTICLE III OF CHAPTER 28 BY ADDING SECTION 28-96. THIS PROPOSED ORDINANCE WOULD MAKE IT A MISDEMEANOR OFFENSE TO BE ON THE PROPERTY OF ANOTHER IN THE NIGHTTIME WITHOUT PERMISSION, LOOKING INTO THE WINDOWS AND DOORS OF THE BUILDING, HOUSE, DWELLING, OR STRUCTURE AND TRESPASS AS DEFINED IN SECTION 28-96 IN THE DELTA TOWNSHIP CODE OF ORDINANCES. FURTHER, THE TOWNSHIP CLERK IS HEREBY DIRECTED TO PUBLISH A NOTICE OF ADOPTION IN LOCAL NEWSPAPERS AND THE AMENDMENTS SHALL BECOME EFFECTIVE UPON PUBLICATION.

TREASURER PIZZO SUPPORTED THE MOTION.

Trustee Kosinski expressed concerns with the definition of “prowling” within the proposed ordinance and what distinguished between behaviors that presumably were not anticipated to be covered by this ordinance and those that were.

Lt. Campbell said there was no distinction and that prowling prohibited anybody from being on private property at night. He noted that if law enforcement witnessed individuals running around at night without a clear purpose for being there, the proposed amendment would provide law enforcement a reason to stop them to further investigate. He said an example of recreational trespassing would be where a property was posted or you would have to be told to leave first.

Trustee Kosinski said he was concerned that the language was too broad and that it could escalate neighborhood disputes where there was already a problem.

Trustee Fedewa said he agreed with Trustee Kosinski that the language was too broad. He would like to see a better definition of “prowling” before the proposed amendment was approved.

Trustee Hicks felt it was important to note that an individual was already trespassing when they were someplace they weren’t supposed to be regardless of their intent. He noted that the other protection was due process and that an individual would not be prosecuted for cutting through someone’s backyard.

Trustee Kosinski questioned if the definition of “prowling” should be omitted from the ordinance.

Lt. Campbell said the concern he had with omitting the definition of “prowling” from the ordinance was the inability to address situations where an individual was prowling around the premises of a business after hours which in itself, was not breaking the law. However, he noted that law enforcement wanted the ability to investigate before a business was broken into.

Clerk Clark pointed out the fact that the proposed language wasn’t 24-hour enforcement, but rather the language specified “night time”.

Trustee Fedewa inquired as to whether the definition of “prowling” should include a specific element of malicious intent.

Lt. Campbell noted that if a specific intent element was included in the ordinance for malicious intent, it would become unenforceable in most cases due to the fact that law enforcement would have to get somebody to incriminate themselves and give up their fifth amendment.

Trustee Hicks pointed out that the proposed ordinance was a regulatory ordinance and that other Township ordinances such as the Zoning Ordinance or Sign Ordinance didn’t reflect intent.

Trustee Kosinski felt there was considerable potential for misunderstanding and abuse given the vagueness of the proposed language.

Clerk Clark called the question. Voice Vote. Carried 7-0.

ROLL CALL:

AYES: TRUSTEE MOJICA, TREASURER PIZZO, CLERK CLARK,  
TRUSTEE HICKS, AND SUPERVISOR FLETCHER

NAYS: TRUSTEE KOSINSKI & TRUSTEE FEDEWA

ABSENT: NONE

MOTION PASSED 5 TO 2.

**ORDINANCE NO. 13-73**

AN ORDINANCE OF THE CHARTER TOWNSHIP OF DELTA, EATON COUNTY, MICHIGAN, PROVIDING THAT THE CODE OF ORDINANCES, CHARTER TOWNSHIP OF DELTA, MICHIGAN, BE AMENDED BY ADDING A NEW SECTION 28-96 ("PROWLING; PRESENT ON PROPERTY OF ANOTHER IN THE NIGHTTIME WITHOUT PERMISSION; WINDOW PEEPING; TRESPASS") TO ARTICLE III ("OFFENSES AGAINST PROPERTY") OF CHAPTER 28 ("OFFENSES") TO MAKE UNLAWFUL BEING ON THE PROPERTY OF ANOTHER IN THE NIGHTTIME WITHOUT PERMISSION, LOOKING INTO THE WINDOWS AND DOORS OF THE BUILDING, HOUSE, DWELLING, OR STRUCTURE AND TRESPASS; REPEAL ORDINANCES AND PORTIONS OF ORDINANCES INCONSISTENT WITH THIS ORDINANCE; AND PROVIDE AN EFFECTIVE DATE HEREOF.

THE TOWNSHIP BOARD OF TRUSTEES FOR THE CHARTER TOWNSHIP OF DELTA HEREBY ORDAINS:

1. Article III ("Offenses Against Property") of Chapter 28 ("Offenses") is hereby amended as follows:

**SECTION 28-96. PROWLING; PRESENT ON PROPERTY OF ANOTHER IN THE NIGHTTIME WITHOUT PERMISSION; WINDOW PEEPING; TRESPASS.**

Any person who violates this Section shall be guilty of a misdemeanor subject to imprisonment for not more than 30 days or by a fine of not more \$250.00, or both.

It shall be unlawful for a person to do any of the following:

- A. Prowl about the premises of another, in the nighttime, without authority or permission of the owner of such premises or without authority or permission of the lawful occupants of the premises or an agent of the lawful occupants.
- B. While standing, kneeling or prowling, or unauthorized entry upon the property of another, day or nighttime, without authority or permission of the owner of such premises or without authority or permission of the lawful occupants, looks into or peeps in the windows or doors of any inhabited building, house, dwelling or structure located thereon.

- C. Willfully enter upon the lands or premises of another without lawful authority, after having been forbidden so to do by the owner, occupant or agent of either, or any person being upon the lands or premises of another, upon being notified to depart therefrom by the owner, occupant or agent of either, who, without lawful authority, neglects or refuses to depart therefrom.

- 5. **Amendments to the Delta Township Zoning Ordinance** – The Community Development Department recommends that the Township Board adopt the proposed Zoning Ordinance text amendments pertaining to On-Site Stormwater Management Facilities.

TREASURER PIZZO MOVED THAT THE DELTA TOWNSHIP BOARD ADOPTED THE PROPOSED ZONING ORDINANCE TEXT AMENDMENTS PREPARED BY STAFF PERTAINING TO ON-SITE STORMWATER MANAGEMENT FACILITIES IN SECTION 19.10.0 A.(10) OF THE DELTA TOWNSHIP ZONING ORDINANCE, AND DESCRIBED IN CASE NO. 12-12-16.

TRUSTEE KOSINSKI SUPPORTED THE MOTION.

ROLL CALL:

AYES: TREASURER PIZZO, TRUSTEE KOSINSKI, TRUSTEE FEDEWA, TRUSTEE HICKS, TRUSTEE MOJICA, CLERK CLARK, AND SUPERVISOR FLETCHER

NAYS: NONE

ABSENT: NONE

MOTION PASSED 7 TO 0.

Section 19.10.0 A.

(10) On-site stormwater management facilities shall be provided as follows:

- (a) Appropriate measures shall be taken to ensure that stormwater runoff will not adversely affect neighboring properties or the public storm drainage system. Provisions shall be made for the construction of stormwater management facilities that prevent flooding, erosion, and dust formation. Surface water on all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic and will not pool in paved areas.

- (b) Stormwater detention, retention, transport, and drainage facilities shall be designed to prevent the pollution of surface or groundwater resources, on-site or off-site. On-site stormwater management facilities shall be reviewed, approved, constructed, and maintained in accordance with the applicable rules, regulations, and specifications of the Eaton County Drain Commissioner's (ECDC) Office. Said facilities shall also conform to the requirements of the ECDC's current standards for post-construction controls for channel protection and water quality as described in the ECDC's current MS4 Stormwater Discharge Permit issued by the Michigan Department of Environmental Quality (MDEQ).

## **XI. CONSENT AGENDA**

TREASURER PIZZO MOVED THAT THE CONSENT AGENDA BE APPROVED AS SUBMITTED.

TRUSTEE FEDEWA SUPPORTED THE MOTION.

ROLL CALL:

AYES: TREASURER PIZZO, TRUSTEE FEDEWA, TRUSTEE  
HICKS, TRUSTEE KOSINSKI, CLERK CLARK, TRUSTEE  
MOJICA, AND SUPERVISOR FLETCHER

NAYS: NONE

ABSENT: NONE

MOTION PASSED 7 TO 0.

### **6. Bills & Financial Transactions - \$667,015.81**

TREASURER PIZZO MOVED THAT THE BILLS & FINANCIAL TRANSACTIONS BE APPROVED IN THE AMOUNT OF \$667,015.81.

Bond/Debt Payments	\$
Investments	\$
Payroll & Related	\$315,652.89
Refunds	\$ 19,202.73
Tax Distributions	\$
Vendor Claims	\$332,160.19

TRUSTEE FEDEWA SUPPORTED THE MOTION. MOTION PASSED 7-0.

7. **Minutes** – February 4, 2013 Regular Board Meeting Minutes

TREASURER PIZZO MOVED THAT THE FEBRUARY 4, 2013 REGULAR BOARD MEETING MINUTES BE APPROVED AS PRESENTED.

TRUSTEE FEDEWA SUPPORTED THE MOTION. MOTION PASSED 7-0.

8. **Economic Development Corporation Appointments** – The Township Supervisor recommends the appointments of Justin Himebaugh and Toni Griffin to the Economic Development Corporation for terms that expire on January 31, 2019.

TREASURER PIZZO MOVED THAT THE DELTA TOWNSHIP BOARD APPOINT JUSTIN HIMEBAUGH AND TONI GRIFFIN TO THE ECONOMIC DEVELOPMENT CORPORATION FOR TERMS THAT EXPIRE ON JANUARY 31, 2019.

TRUSTEE FEDEWA SUPPORTED THE MOTION. MOTION PASSED 7-0.

9. **Receiving Boards for the May 7<sup>th</sup> and November 5<sup>th</sup> 2013 Elections** – The Clerk's Office recommends that the Township Board establish two receiving boards for the May 7 and the November 5, 2013 Elections.

TREASURER PIZZO MOVED THAT THE TOWNSHIP BOARD OF THE CHARTER TOWNSHIP OF DELTA ESTABLISH TWO RECEIVING BOARDS FOR THE ELECTIONS SCHEDULED FOR MAY 7, AND NOVEMBER 5, 2013. THE RECEIVING TEAMS SHALL CONSIST OF 2 ELECTION INSPECTORS OF OPPOSITE PARTIES AND SHALL BE APPROVED BY THE ELECTION COMMITTEE. THE RECEIVING TEAMS WILL OPEN THE SEALED ENVELOPES TO REVIEW THE POLL BOOK AND STATEMENT OF VOTES AND TO DETERMINE THE FOLLOWING:

- (1) BALLOT CONTAINER PROPERLY SEALED AND SEAL NUMBER IS PROPERLY RECORDED IN POLL BOOK AND ON STATEMENT OF VOTES. IF BALLOT CONTAINER IS NOT PROPERLY SEALED OR THERE IS A DISCREPANCY WITH SEAL NUMBER RECORDED IN POLL BOOK OR ON STATEMENT OF VOTES, THE PRECINCT ELECTION INSPECTORS WHO DELIVERED THE BALLOT CONTAINER AND THE RECEIVING TEAM BOARD MEMBERS WILL TOGETHER TAKE NECESSARY STEPS TO CORRECT THE DISCREPANCY. THE DISCREPANCY IF ANY SHALL BE NOTED IN THE REMARKS SECTION OF POLL BOOK AND ALL FOUR INSPECTORS MUST SIGN NOTATION.
- (2) THE NUMBER OF INDIVIDUALS VOTING RECORDED IN POLL BOOK EQUALS NUMBER OF BALLOTS ISSUED TO VOTERS AS SHOWN IN STATEMENT OF VOTES.



(3) IF THE POLL BOOK OR STATEMENT OF VOTES HAS BEEN MISTAKENLY SEALED IN BALLOT CONTAINER, THE ELECTION INSPECTORS MAY OPEN THE BALLOT CONTAINER AND REMOVE THE POLL BOOK AND STATEMENT OF VOTES. THE PRECINCT INSPECTORS AND RECEIVING BOARD INSPECTORS SHALL NOTE THE CORRECTIVE ACTION IN REMARKS SECTION OF POLL BOOK. ALL FOUR INSPECTORS MUST SIGN NOTATION PRIOR TO RE-SEALING BALLOT CONTAINER AND PLACING POLL BOOK AND STATEMENT OF VOTES IN SEPARATE ENVELOPE TO BE RE-SEALED.

(4) AFTER RECEIVING BOARD HAS COMPLETED REVIEWING BALLOT CONTAINER, POLL BOOK AND STATEMENT OF VOTES FROM ALL PRECINCTS THE POLL BOOK AND STATEMENT OF VOTES SHALL BE PLACED IN APPROPRIATE ENVELOPE, SEALED WITH RED PAPER SEAL AND DELIVERED TO COUNTY CLERK ELECTION NIGHT. SEALED BALLOT CONTAINERS SHALL BE PLACED IN SECURED AREA UNTIL ELECTION CERTIFIED BY COUNTY BOARD OF CANVASSERS AND STATE BOARD OF CANVASSERS. AFTER ELECTION CERTIFICATION, ELECTION CONTENTS MAY BE TRANSFERRED FROM BALLOT CONTAINER TO APPROVED BALLOT BAG FOR APPROPRIATE RETENTION PERIOD ACCORDING TO ELECTION LAW.

TRUSTEE FEDEWA SUPPORTED THE MOTION. MOTION PASSED 7-0.

**XII. ITEMS REMOVED FROM CONSENT AGENDA FOR DISCUSSION - None**

**XIII. ITEMS ADDED TO AGENDA UNDER SECTION V. SET/ADJUST AGENDA – None**

**XIV. ITEMS OF BUSINESS**

- 10. Final Consideration of LaHaie Special Land Use Permit** – The Community Development Department recommends that the Township Board approve the request for a Special Land Use Permit for an internet gun sales home occupation.

TRUSTEE HICKS MOVED THAT THE DELTA TOWNSHIP BOARD APPROVE THE REQUEST FOR A SPECIAL LAND USE PERMIT FOR AN INTERNET GUN SALES HOME OCCUPATION ON THE PROPERTY DESCRIBED IN CASE NO. 12-12-15 FOR THE FOLLOWING REASONS:

1. THE REQUEST IS CONSISTENT WITH THE LAND USE RECOMMENDATIONS OF THE DELTA TOWNSHIP COMPREHENSIVE PLAN AND THE INTENT OF THE ZONING ORDINANCE FOR THE AREA OF THE TOWNSHIP IN WHICH IT IS LOCATED.

2. PUBLIC UTILITIES AND SERVICES ARE ADEQUATE TO SERVE THE PROPOSED USE ON THE SUBJECT PARCEL.
3. THE PROPOSED USE WILL NOT POSE A SIGNIFICANT THREAT TO THE PUBLIC HEALTH, SAFETY, AND WELFARE BY REASON OF EXCESSIVE PRODUCTION OF TRAFFIC, NOISE, SMOKE, GLARE, OR ODORS.

THE SPECIAL LAND USE PERMIT IS APPROVED SUBJECT TO THE FOLLOWING STIPULATIONS:

1. CONTINUED COMPLIANCE WITH ALL OTHER HOME OCCUPATION REGULATIONS SPECIFIED BY SECTION 18.8.0 H OF THE DELTA TOWNSHIP ZONING ORDINANCE.
2. FAILURE OF THE APPLICANT TO COMPLY WITH ANY OF THE PROVISIONS REQUIRED BY THE DELTA TOWNSHIP ZONING ORDINANCE, OR ANY STIPULATIONS HEREIN REQUIRED BY THE DELTA TOWNSHIP BOARD, SHALL CONSTITUTE GROUNDS FOR TERMINATION OF THIS SPECIAL LAND USE PERMIT BY THE DELTA TOWNSHIP BOARD.

TRUSTEE FEDEWA SUPPORTED THE MOTION. MOTION PASSED 6-1 (CLARK).

- 11. Final Consideration of Gannon Special Land Use Permit** – The Community Development Department recommends that the Township Board approve the request for a Special Land Use Permit for allow a group day care facility at 7312 Williamsburg.

TRUSTEE MOJICA MOVED THAT THE DELTA TOWNSHIP BOARD APPROVE THE REQUEST FOR A SPECIAL LAND USE PERMIT FOR A GROUP DAY CARE FACILITY ON THE PROPERTY DESCRIBED IN CASE NO. 1-13-1 FOR THE FOLLOWING REASONS:

1. THE REQUEST IS CONSISTENT WITH THE LAND USE RECOMMENDATIONS OF THE DELTA TOWNSHIP COMPREHENSIVE PLAN AND THE INTENT OF THE ZONING ORDINANCE FOR THE AREA OF THE TOWNSHIP IN WHICH IT IS LOCATED.
2. PUBLIC UTILITIES AND SERVICES ARE ADEQUATE TO SERVE THE PROPOSED USE ON THE SUBJECT PARCEL.
3. THE PROPOSED USE WILL NOT POSE A SIGNIFICANT THREAT TO THE PUBLIC HEALTH, SAFETY, AND WELFARE BY REASON OF

EXCESSIVE PRODUCTION OF TRAFFIC, NOISE, SMOKE, GLARE,  
OR ODORS.

THE SPECIAL LAND USE PERMIT IS APPROVED SUBJECT TO THE  
FOLLOWING STIPULATIONS:

1. DAY CARE ACTIVITY SHALL OCCUR ONLY ON WEEKDAYS  
BETWEEN 7:15 AM AND 5:30 PM
2. CONTINUED COMPLIANCE WITH ALL OTHER HOME OCCUPATION  
REGULATIONS SPECIFIED BY SECTION 18.10.0 D OF THE DELTA  
TOWNSHIP ZONING ORDINANCE.
3. FAILURE BY THE APPLICANT TO COMPLY WITH ANY OF THE  
PROVISIONS REQUIRED BY THE DELTA TOWNSHIP ZONING  
ORDINANCE, OR ANY STIPULATIONS HEREIN REQUIRED BY THE  
DELTA TOWNSHIP BOARD, SHALL CONSTITUTE GROUNDS FOR  
TERMINATION OF THIS SPECIAL LAND USE PERMIT BY THE  
DELTA TOWNSHIP BOARD.

TRUSTEE HICKS SUPPORTED THE MOTION. MOTION PASSED 7-0.

- 12. Transmittal of the Delta Township Comprehensive Plan** – The Planning Commission recommends that the Township Board acknowledge receipt of the 2013 Delta Township Comprehensive Plan as adopted by the Delta Township Planning Commission on January 28, 2013.

CLERK CLARK MOVED THAT THE DELTA TOWNSHIP BOARD HEREBY  
ACKNOWLEDGE RECEIPT OF THE 2013 DELTA TOWNSHIP  
COMPREHENSIVE PLAN AS ADOPTED BY THE DELTA TOWNSHIP  
PLANNING COMMISSION ON JANUARY 28, 2013.

TRUSTEE MOJICA SUPPORTED THE MOTION.

Planning Commission Chairperson Pat Gabriel noted that, as per the Michigan Planning Enabling Act, the Township began a review of the Comprehensive Plan in 2011. She indicated that a Futuring Session was held at the Township Hall where the public was given an opportunity to provide their input on the Plan. She referred to a chronology, which had been provided to the Board, of meetings that were held regarding the Plan and she noted several meetings were held by the Planning Commission where issues were discussed such as motorized and non-motorized transportation, handicap accessibility, zoning and land uses, environmental concerns, and parks and recreation. She noted that during the Commission's review of various chapters of the Plan, staff provided the Commission with a series of work papers that summarized key

issues in the Township such as shifting land use patterns, future utility extensions, Urban Service Boundaries, and Conditional Zoning that provoked discussion and consideration of these types of changes within the Plan. Ms. Gabriel noted that other issues the Commission had discussed included the Saginaw Highway Corridor and future growth west of Broadbent. She noted that the Commission also recognized the fact that periodic updates to the Plan were needed in order to keep the Plan current. Ms. Gabriel complemented the Planning Commission for their thorough review and commitment to the review process, as well as the outstanding job by staff.

Supervisor Fletcher said it was evident that the Planning Commission had put in a tremendous amount of work over the past year to develop an updated Comprehensive Plan and that there had been a lot of avenues and opportunities for public input and review.

Treasurer Pizzo appreciated the work done by all that went into the updated Plan which he felt was a major accomplishment. He felt improvements needed to be made to the Transportation Plan over the next few years based on projected needs. Mr. Pizzo stated that one of his issues was the extension of the Township's boundaries without any justifications included within the Plan.

Trustee Fedewa also complimented those involved in the review process. Mr. Fedewa noted that he also shared Treasurer Pizzo's concerns about the expansion of low density residential and what the impacts would be as a whole. Mr. Fedewa felt the Comprehensive Plan was supposed to follow goals for the future vision of Delta and implementing those goals over time. He questioned what the Planning Commission's deliberations were and how their reasoning lead them to this conclusion.

Treasurer Pizzo referred to the existing and proposed land use map of the Township and pointed out the land use changes that had been recommended to occur west of Broadbent resulting in an increase of low density residential development over a 20 year time period. Mr. Pizzo reiterated his concerns with the lack of rationale in the Plan for additional low density residential and how it could be explained to the public.

Trustee Fedewa noted that other than viewing the changes that had been made to the Future Land Use Map, he didn't see what the vision was other than a recommendation for additional low density residential. He didn't know what type of housing mix and densities had been addressed, the impact on the infrastructure, population projections, and open space. Mr. Fedewa noted that the Plan concluded with a laundry list of what he perceived to be priority action items, but he needed clarification on those priorities and what the Township

should pursue. Mr. Fedewa wanted more time to review the Plan before it was adopted.

Clerk Clark noted that there had been several references made by Treasurer Pizzo and Trustee Fedewa about intentions, but she viewed the Plan as containing possibilities versus intentions and that a lot can happen between now and the year 2032. She said the Plan didn't bind the Township to automatically develop everything west of the freeway.

Community Development Director Mark Graham indicated that the Plan was a long range plan and what would happen over a 20 year time period and that the Plan wasn't binding like the Zoning Ordinance.

Trustee Kosinski said he looked at the changes made to the proposed Future Land Use Map for the westernmost portion of the Township and the question that came to mind was "if not single family residential, then what". He felt the Plan conveyed a very clear vision and he felt it was consistent with the kind of growth that has been voiced many times before with containing commercial and industrial growth within existing boundaries. Mr. Kosinski felt the Plan pointed the Township in a realistic and desirable direction.

Trustee Hicks inquired about the deadline for approving the Plan.

Mr. Graham referred to PA 33 which mandated that the Township review the Plan every five years. He noted that the current Plan was adopted in 2004.

Trustee Hicks said he didn't have any objection to tabling the Plan for 30 days; however, he questioned what the end goal was in terms of the time table.

Supervisor Fletcher asked what the Board wanted to see happen by tabling Board action for 30 days.

Treasurer Pizzo said he would like 30 days to get clarification on the reasoning behind the recommendations and the pros and cons for single family and what type of residential development the Township would like to see.

Trustee Hicks recognized the fact that this was not a zoning map, but rather a Future Land Use Map recommending residential development and he questioned if the Board wanted to go as far as stipulating the type of housing mix that was developed.

Treasurer Pizzo noted that the Board should lay out a vision of how to make a transition between wooded and agricultural classifications to low density residential. He felt there should be some type of reference provided in the Plan for future direction in order to improve the Plan as we moved forward.

Trustee Fedewa questioned how the Township could deny a request for low density residential when that is what the Plan recommended.

Mr. Graham said the Planning Commission would do what they always had done and review requests on a case by case basis and look at all aspects of the Plan. He indicated that the Plan was a long range plan that recommended low density residential for this area of the Township just as it had since 1973. He noted that there were approximately 2,500 acres of vacant land west of the freeway designated for low density residential development, but he believed the Township would have a case to deny an application if they didn't meet all the other criteria in the Plan. Mr. Graham stated that the current single family residential classification contained in the Plan reflected the predominate land use pattern in the area west of the freeway with densities up to and below 5 dwelling units per acre for a majority of the area with mixed uses and other uses as provided for in the Zoning Ordinance. Mr. Graham felt the Township would have justification to deny a rezoning request if it didn't meet all the standards in the Comprehensive Plan, as well as the Zoning Ordinance.

Trustee Fedewa said if the Plan was tabled for 30 days, he would like to have more dialogue with the Planning Commission to determine if they were open to articulating a more strategic vision for development west of the freeway.

Ms. Gabriel noted that the Planning Commission had discussed cluster housing for years, but that type of housing was driven by the developer, not the Commission.

Supervisor Fletcher said by tabling the Plan for 30 days, he had concerns with the Planning Commission being confused as to what they were supposed to do. He was ready to move forward this evening and he noted that there had been many avenues provided for drafts and public input to occur at the Planning Commission level and that the Board's role was to acknowledge receipt of the Plan.

Trustee Kosinski encouraged the Board to acknowledge receipt of the Plan this evening. Mr. Kosinski said if he felt the Plan was a document that would bind the Township and restrict our options in the future, he would feel differently, but the Plan was only a recommendation for future development and as Mr. Graham had pointed out, there was a very thorough process in place when reviewing development requests.

Trustee Fedewa felt the statute stated that the governing board either accepts or rejects the Plan.

Mr. Graham noted that Section 41 of the Act stated that approval of the proposed master plan by the Planning Commission is the final step for

adoption of the master plan unless the legislative body by resolution has inserted the right to approve or reject the master plan. In that case after approval of the proposed master plan by the Planning Commission, the legislative body shall approve or reject the proposed master plan. The statement recording the legislative body's approval of the master plan signed by the clerk, shall be included on the inside front cover of the master plan. Mr. Graham felt the Act gave the Township Board the final authority to override the Planning Commission's approval.

Mr. Graham noted that the Act required the secretary of the Planning Commission to send the Board a copy or an acknowledgement of their approval which was what was occurring this evening. He noted that if the Board did nothing further this evening, the Plan would be approved as adopted by the Planning Commission.

VOICE VOTE. CARRIED 5-2 (PIZZO & FEDEWA).

#### **XV. MANAGER'S REPORT**

Township Manager Watkins informed the Board of the following:

- Directors would be asked to attend the Board's March 11<sup>th</sup> meeting to obtain feedback from the Board regarding the Strategic Plan.
- EDC would be focusing their efforts on the Saginaw Highway corridor.
- The Huntington Acres water project would be coming to the Board to set up a 45 day procedure so that financing could be obtained if determined needed.
- The sewer main replacement project on Willow Highway would be completed this week.

#### **XVI. COMMITTEE OF THE WHOLE**

##### **13. Municipal Utility Standards – Gary Arnold**

Township Engineer Gary Arnold said the Township had installation standards in place that were provided to the public for water and sewer infrastructures. He indicated that the standards were adopted in 1975 and last amended 18 years ago. Mr. Arnold noted that the Board had been provided with a draft copy of the amended standards that were now entitled Municipal Utility Standards which set forth not only installation standards, but design parameters and procedures in how to obtain plan approval. He indicated that when drafting the standards, staff used well established codes from the Department of Environmental Quality entitled "10 State Standards" which were states around

Michigan that had adopted similar standards for designs. Mr. Arnold proceeded to provide the Board with a brief overview of the updated standards.

General discussion ensued regarding the changes and updates that had been made to the standards which reflected administrative requirements and technical changes to the design and construction of municipal water and wastewater collection systems.

## **XVII PUBLIC COMMENTS**

Dave Forsberg, 321 Harpers Way, provided the Board with a power point presentation that illustrated areas surrounding the Gettysburg subdivision that would be impacted by future development by Mt. Hope Church and how those impacts could be minimized. Concerns expressed by Mr. Forsberg pertained to the proximity of future roads and buildings to existing homes along Harpers Way and Shiloh, aesthetics with regards to lighting and adequate buffering, and that future development blend in with the character of the neighborhood. Mr. Forsberg indicated that they were also concerned that the Township's Zoning Ordinance didn't limit construction activities to certain hours, but rather the ordinance only referenced decibels. Mr. Forsberg closed by stating that the residents would continue their communications with the church and the Township to make sure any development that occurred would not have a negative impact on property owners within Gettysburg Estates.

Howard Spence, 1637 Willow Creek Dr., commended the Board on a very efficient and impressive meeting this evening; however, he expressed concerns relating to the ordinances that were adopted by the Board. Mr. Spence noted that without having the benefit of reviewing the ordinances, he was concerned that the ordinance regarding spitting criminalized this behavior instead of making it a civil infraction. Mr. Spence noted that he was also concerned that the trespassing ordinance was overly vague. He was concerned that the ordinances passed by the Board this evening could have an adverse effect on the records of juveniles.

Trustee Hicks voiced his support for the integrity of the Eaton County Sheriff's Department and their enforcement of the laws within the Township.

Supervisor Fletcher welcomed Mr. Spence to come before the Board if he heard of any concerns expressed in the community regarding the way laws were being enforced within the Township.

Treasurer Pizzo attended the EATRAN Board meeting this month and was able to view their plans for remodeling and expansion.



**XVIII ADJOURNMENT**

Supervisor Fletcher adjourned the meeting at 8:13 p.m.

**CHARTER TOWNSHIP OF DELTA**

KENNETH FLETCHER, SUPERVISOR

MARY CLARK, CLERK

/as  
M:\Regular Board Meeting\BD\MIN\February 18, 2013  
Minutes Approved:

MEMO



TO: Township Board  
Delta Township

FROM: Utility and Environmental Committee

DATE: February 20, 2013

SUBJECT: Municipal Utility Standards

The current standards, titled Delta Township Water/Wastewater Installation Standards, were initially issued in June 1975. There have been eight revisions/amendments made to the Standards via resolutions of the Township Board; the most revision was on August 7, 1995.

Recognizing that many of the standards/requirements set forth in the 1975 document are outdated or no longer applicable, the Engineering Division drafted new standards to reflect current administrative requirements and technical changes to the design and construction of municipal water and wastewater collection systems.

The Utility and Environmental Committee has reviewed the recommended changes and concur with staff that our current Standards must be updated to reflect current requirements and standards.

Therefore we offer the following:

“I move the Township Board adopt the Municipal Utility Standards document which will replace the document titled *Delta Township Water/Wastewater Installation Standards*, and further, be used as the requirement for all future municipal water and wastewater projects in Delta Township.”

# **MUNICIPAL UTILITY STANDARDS**

## **CHARTER TOWNSHIP OF DELTA EATON COUNTY, MICHIGAN**



Adopted: \_\_\_\_\_

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EATON COUNTY, MICHIGAN

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## DEFINITIONS

## DEFINITIONS

### MUNICIPAL UTILITY STANDARDS CHARTER TOWNSHIP OF DELTA

The following definitions shall apply to the interpretation of these standards:

Contractor – The person, firm, or corporation engaged by the Developer for construction services in conjunction with the proposed land development.

Developer: A natural person or persons, firm, association, partnership, corporation, or combination of any of them, which may hold any ownership interest in properties within the Charter Township of Delta and who proposes subdivision or other land development and/or municipal utility improvements.

Drain Commissioner: The Drain Commissioner of Eaton County, Michigan.

Engineer (or Township Engineer): The Township Engineer for the Charter Township of Delta or his designated representative.

Road Commission: The Board of County Road Commissioners of Eaton County, Michigan.

Standards: Municipal Utility Standards, Charter Township of Delta, Eaton County, Michigan.

Ten States Standards: As used in these “Standards” Ten States Standards refers to Recommended Standards for Water Works, and for Sewage Works, as recommended by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers.

Township: The Charter Township of Delta, Eaton County, Michigan

Township Board (or Board, or Board of Trustees): The governing body of the Charter Township of Delta, Eaton County, Michigan.

Utility Agreement: The written agreement between the Township and the Developer which outlines the requirements for constructing extensions/additions to the Township water and sanitary sewer infrastructure.

Utility Committee: The standing Utility Committee of the Charter Township of Delta Board responsible for considering issues related to the construction and operation of Township-owned utilities.

# ADMINISTRATIVE PROCEDURES

ADMINISTRATIVE PROCEDURES  
COORDINATION OF REGULATIONS AND RULES

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

In addition to these Municipal Utility Standards, the Developer shall also reference, as applicable, the following ordinances, regulations, rules and standards.

Charter Township of Delta Web Site ([www.deltami.gov](http://www.deltami.gov)): Refer to the Planning and Zoning page for information on the Township requirements for land development; page includes links to Planning Division Forms

Charter Township of Delta Code of Ordinances, including but not limited to the following:

Chapter 12	Community Development
Chapter 18	Land Divisions and Subdivisions
Chapter 34	Streets, Sidewalks and Public Places
Chapter 40	Utilities

Delta Township Fire Department Supplemental Rules & Regulations; This document sets forth Fire Department requirements associated with the development of residential and commercial properties in the Township. Developers/property owners are encouraged to contact the Fire Department to secure a copy of the current edition of this document.

The Delta Township Engineering Division has established a survey control network which includes survey point data in State Plane Coordinates and a local delta Township coordinate system. In addition, the Engineering Division has limited bench mark information in NAVD88 and NGVD29 datums. This information is available to the Developer for his use in preparing his engineering plans.

A summary of the agency contacts involved in the land development review process within the Charter Township of Delta is provided on the following pages. An Administrative Procedures Flow Chart illustrating the submittal and approval process is provided on page AP-14.



ADMINISTRATIVE PROCEDURES  
DEVELOPMENT REVIEW AGENCIES

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

This is a general description of the various agencies involved in the development review process within Delta Township:

**STREETS:**

Trunklines &  
Expressways:

All expressways (I-96, I-496, and I-69) and trunklines (Saginaw Highway, M-43) are under the jurisdiction of the Michigan Department of Transportation (MDOT). Inquiries regarding these facilities should be addressed to:

Utilities Permit Engineer  
Michigan Department of Transportation  
Lansing Transportation Service Center  
3101 Technology Boulevard, Suite H  
Lansing, Michigan 48901  
Phone: (517) 324-2285

County Roads:

All public roads in Delta Township, with the exception of expressways and MDOT trunklines, are under the jurisdiction of the Eaton County Road Commission. Inquiries regarding these roads should be addressed to:

Engineer - Manager  
Eaton County Road Commission  
1112 Reynolds Road  
Charlotte, Michigan 48813  
Phone: (877) 883-2866, Ext. #205

**STREET NAMING & ADDRESSING:**

Street names and addresses are issued in conjunction with Eaton County's Central Dispatch 911 Office. Inquiries should be addressed to:

Eaton County Central Dispatch 911  
1067 Independence Boulevard  
Charlotte, Michigan 48813  
Phone: (517) 543-3510, Ext. #391

## **STORM DRAINAGE:**

Public storm drains in Delta Township are under the jurisdiction of the Eaton County Drain Commissioner's Office. On-site stormwater detention is required in most areas of the Township. Enforcement of Michigan's Soil Erosion and Sedimentation Act in Eaton County is also the responsibility of the Eaton County Drain Commissioner's Office. Inquiries regarding storm drainage Soil Erosion and Sedimentation permits should be addressed to:

Eaton County Drain Commissioner  
Eaton County Courthouse  
1045 Independence Boulevard  
Charlotte, Michigan 48813  
Phone: (517) 543-7809

## **PUBLIC WATER SERVICE:**

**General System:** Delta Township provides public water service to many areas of the Township. The Township Engineering Division has maps of the water system, hydrant locations, and as-built utility drawings. Inquiries should be addressed to:

Engineering Division  
Delta Township Community Development Department  
7710 West Saginaw Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8540

**System Details:** The Water Division of the Township Utilities Department can provide assistance regarding connections, modifications, and additions to the existing water system. Inquiries should be addressed to:

Distribution System Supervisor  
Delta Township Utilities Department - Water Division  
7000 West Willow Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8570

**FIRE PROTECTION:**

The Delta Township Fire Department is responsible for providing fire protection to Township residents and businesses. Questions relating to fire hydrants, alarm systems, sprinklers, emergency vehicle access requirements, etc. should be addressed to:

Delta Township Fire Department  
811 N. Canal Road  
Lansing, Michigan 48917  
Phone: (517) 321-6622

**SANITARY SEWER SERVICE:**

General System: The Charter Township of Delta provides public sanitary sewer service to many areas of the Township. For general system information contact:

Engineering Division  
Delta Township Community Development Department  
7710 West Saginaw Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8540

System Details: The Wastewater Treatment Plant Division of the Township's Utilities Department can provide assistance regarding details such as waste discharge requirements, pre-treatment regulations, surcharge costs, the Sewer Use Ordinance, and the operation of the sanitary sewer system. Inquiries should be addressed to:

Utilities Director  
Delta Township Utilities Department  
7000 West Willow Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8570

**BUILDING & SIGN REGULATIONS:**

The Charter Township of Delta operates under the Uniform Building Code as administered by the Township's Building Division. The Delta Township Sign Ordinance is also administered by the Building Division. Inquiries should be addressed to:

Building Division  
Delta Township Community Development Department  
7710 West Saginaw Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8530

## **POLICE PROTECTION:**

The Charter Township of Delta contracts with the Eaton County Sheriff's Department for police protection. The Sheriff's Department has a sub-station located within the Township on Administration Drive across from the Township Administration Building. Inquiries should be made to:

Eaton County Sheriff's Department, Delta Sub-Station  
7108 Administration Drive  
Lansing, Michigan 48917  
Phone: (517) 323-8480

## **LAND DIVISIONS:**

Splitting off parcels for sale or development require the issuance of a Certificate of Land Division by the Charter Township of Delta Assessing Department. Land divisions, if required, must be reviewed and approved prior to receiving a building permit. Inquiries regarding the land division application, review, and approval process, or the number of divisions a parcel may qualify for, should be directed to:

Delta Township Assessing Department  
7710 West Saginaw Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8520

## **ZONING AND SUBDIVISION REGULATIONS:**

Copies of the Delta Charter Township Zoning Ordinance and Subdivision Regulations may be obtained from the Delta Township Planning Division. The Planning Division is responsible for processing site plan reviews, re-zonings & special land use permits, variance requests, and subdivision plats. Inquiries should be addressed to:

Planning Division  
Delta Township Community Development Department  
7710 West Saginaw Highway  
Lansing, Michigan 48917  
Phone: (517) 323-8560

## **EATON COUNTY HEALTH DEPARTMENT**

The Barry-Eaton District Health Department is responsible for on-site water well and septic system permits, enforcement of the Time of Sale/Transfer program for the sale of properties served by on-site water and septic systems and restaurant inspections.

Barry-Eaton District Health Department  
1033 Health Care Drive  
Charlotte, Michigan 48813  
Phone: (517) 485-7110

ADMINISTRATIVE PROCEDURES  
PRELIMINARY UTILITY PLAN SUBMITTAL PACKAGE

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

A Developer desiring to construct municipal sanitary sewer and water main utilities within Delta Township shall submit to the Township Engineer a Preliminary Plan Submittal outlining the proposed utility construction.

The Preliminary Plan Submittal package shall have been prepared by and contain the seal of a Professional Engineer, licensed to practice in the State of Michigan and shall be transmitted to the Township Engineer under letterhead and signature of the Developer. The preliminary submittal shall include the following elements.

A. PRELIMINARY SITE PLANS/UTILITY CONSTRUCTION PLANS

1. The construction plans shall be prepared on 24" x 36" sheet format. Plans shall be drawn to a scale no greater than 1" = 50'.
2. Each sheet of the plans shall include a title block in the lower right hand corner. This title block shall include the caption of the work specifying sanitary sewer or water, location and the wording "CHARTER TOWNSHIP OF DELTA". A revision block shall be situated near the title block.
3. Plan sheets shall be indexed on the first or cover sheet.
4. Both the sanitary sewer and water infrastructure to be constructed shall be depicted in plan and profile. The profiles shall include the finished grade over the respective utility. All elevations shall be based on NAVD88 datum. The drawings shall indicate all existing and proposed utilities and topographic features.
5. Preliminary plans shall indicate existing sanitary sewer and water infrastructure and the proposed sewer and water infrastructure to serve the proposed structures and shall include proposed sewer and water infrastructure to serve future developments as may be applicable.
6. Location of all buildings and related structures, roadways, driveways and parking areas existing or proposed under the current phase shall be shown on the plans.
7. Identification of the sewer and water facilities which are to be owned by the Township shall be indicated, including any easements or rights-of-way that are to be granted to the Township.

8. The requirements of these Municipal Utility Standards shall be referenced by a note on the construction plans. Supplemental specifications and requirements applicable to the Township's interests may also be noted on the construction plans, or included by reference to another document.
  9. Two (2) sets of preliminary site plans/utility construction plans on paper and one in electronic PDF format shall be submitted to the Township Community Development Department for review by the Township Engineer.
- B. GEOTECHNICAL REPORT: Unless otherwise approved by the Township Engineer, a geotechnical report summarizing the soil and ground water conditions along the proposed utility construction shall be submitted to the Township as part of the Preliminary Plan Submittal package. The geotechnical report shall be prepared by a qualified geotechnical firm and signed by a Professional Engineer licensed to practice in the State of Michigan. At a minimum, the geotechnical report shall comply with the following requirements:
1. Soil borings shall be secured at a maximum spacing of 250 feet along the proposed utility alignment.
  2. Soil borings shall extend a minimum of five (5) feet below the bottom of the proposed utility.
  3. Soil borings shall provide split-spoon samples at 2.5 foot intervals for the first 10 feet of depth and at 5 foot intervals for depths greater than 10 feet. Soil borings shall be completed in accordance with ASTM D1586-11.
- C. MAINTAINING TRAFFIC PLAN: In the event that the proposed utility construction will impact vehicular or pedestrian traffic, the Developer shall submit a Maintaining Traffic Plan to the Township Engineer for review and comment. The Maintaining Traffic Plan shall meet the requirements of the Eaton County Road Commission and/or the Michigan Department of Transportation and shall be approved by the applicable agency prior to commencement of construction.

ADMINISTRATIVE PROCEDURES  
FINAL UTILITY PLAN SUBMITTAL

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

1. Final plan submittals shall be made in accordance with the requirements of the Township Community Development Department. The final plan submittal shall be reviewed by the Township Engineer and, upon approval by the Township Engineer; the Township will prepare and forward to the Developer a Utility Agreement to be executed by the Developer. Upon receipt of an executed Utility Agreement from the Developer, the Township Community Development staff will present to the Township Board the Developer-executed Utility Agreement for consideration.
2. In addition to the final plans required for submittal to the Township Community Development Department, the Developer shall submit to the four (4) sets of utility construction plans sealed by the Developer's engineer and a separate basis of design for each proposed utility (water and/or sanitary sewer). The Township Engineer will prepare and submit the applicable construction permit applications forms to the Michigan Department of Environmental Quality for issuance of the utility construction permits. Any additional permits required for the construction shall be secured by the Developer.
3. To facilitate construction observation by the Township Engineering Division, the Developer shall furnish the Township an electronic copy of the utility construction plans in PDF format. The electronic copy shall be furnished after the plans have been approved by the Township and the other applicable governmental agencies, but prior to the commencement of construction.
4. The Developer shall also furnish the Township Engineering Division an electronic copy of the utility construction plans in AutoCAD format for purposes of preparing record drawings of the utility construction. The electronic copy shall be furnished after the plans have been approved by the Township Engineer and the other applicable governmental agencies, but prior to the commencement of construction.

ADMINISTRATIVE PROCEDURES  
FOR  
TOWNSHIP/DEVELOPER UTILITY AGREEMENTS  
  
CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

1. Conditions of the Utility Agreement shall reflect the unique circumstances of each project. The following items, while not to be all inclusive, shall be considered as applicable and appropriate for most utility agreements:
  - A. Developer shall arrange for the procurement of the necessary material, labor, and equipment to cause the construction of the sewer and/or water facilities to be performed in a manner consistent with this agreement, the plans and specifications and all applicable statutes, ordinances, and rules and regulations (unless otherwise specifically agreed to herein).
  - B. The cost of the improvements including sewer and water facilities to be owned by the Township, as well as charges incurred by the Township for administrative, legal, planning, and engineering services, including review of the construction plans and specifications, preparation of any easements, construction observation, gathering and recording "as-built" data, and the preparation of the deed of grant, shall be borne by Developer (unless otherwise specifically agreed to herein).
  - C. The approved final plan submittal shall be plans of record as to the sewer and water utilities to be constructed and same may be revised to incorporate changes in the development plan and any new phases thereof, subject to obtaining prior approval of the Township Engineer and the revising of the final plan. Subject to other applicable considerations, necessary building permits may be issued upon the final execution of the Utility Agreement. Sewer and/or water connection permits are subject to satisfactory completion of the proposed mains and related appurtenances as later herein agreed.
  - D. The parties agree a commitment is hereby made on the part of the Developer to build the facilities herein indicated, and on the part of the Township to own, operate and maintain these facilities henceforth.
  - E. Sureties in the form of cash, certified check, or irrevocable bank letter of credit running to the Charter Township of Delta whichever the Developer selects, may be required by applicable statutes and/or ordinances or by the Board, and shall be posted reflecting the cost of utility construction as estimated by the Township Engineer prior to start of construction or approval of a final plat.

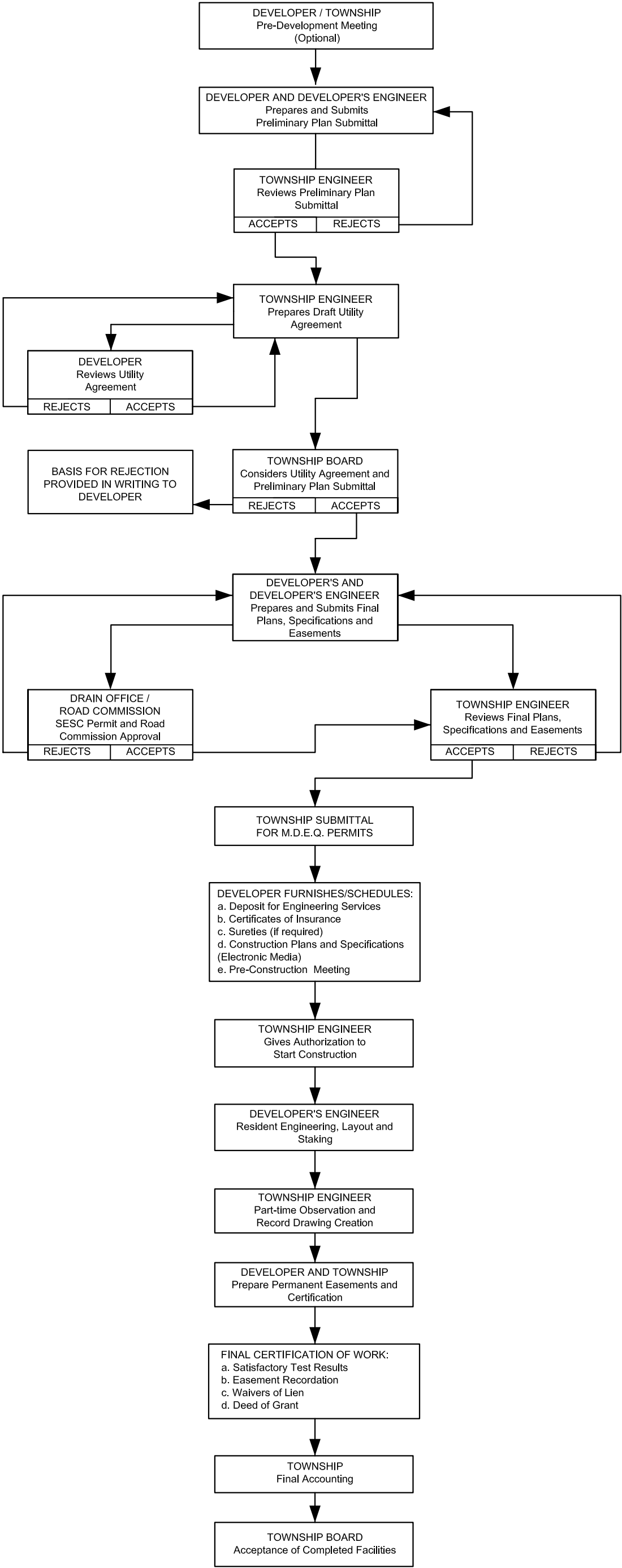


- F. The parties agree the facilities indicated herein to be built may be phased, or staged. (A time factor, or deadline, shall be included). Developer agrees that it will furnish the Township with construction plans and specifications for any current phase of the work covered by this agreement, which plans shall be prepared by a Professional Engineer, licensed to practice in the State of Michigan, to show the proposed utility facilities to become the property of the Township. The plans and specifications shall be consistent with the Municipal Utility Standards. All construction plans and specifications in connection therewith shall be subject to approval by the Township Engineer. The Township Engineer shall forward all such plans for approval to the appropriate State agency and the issuance of necessary permits. When a permit is granted by the appropriate State agency same shall constitute approval by the appropriate State agency and the Township Engineer. Developer shall furnish Delta an electronic copy (in AutoCAD format) of the plans for use by the Township Engineer during construction.
- G. Construction shall not commence until the Township Engineer has issued written authorization to Developer. Prior to starting construction work Developer shall have:
- a. Caused his contractor to furnish current certificates of insurance noting the Township as an additional insured (see General Conditions of these Municipal Utility Standards).
  - b. Posted any required sureties.
  - c. Conducted the pre-construction meeting (see General Conditions of these Municipal Utility Standards).
  - d. Caused his contractor to have obtained proper permits from the Eaton County Road Commission, the Office of the Eaton County Drain Commissioner and other governmental agencies as may be applicable.
- H. The Developer shall be responsible for costs incurred by the Township in conjunction with the utility construction proposed by the Developer. Engineering services shall include plan review, preparation of construction permit applications, construction observation, gathering and recording as-built/record data and preparation of easements. Developer shall pay the actual hourly rate of the personnel employed to perform the engineering services plus time and one-half for overtime and double time for Sunday or Holiday work, plus 70% of the actual hourly rates of personnel to cover fringes, transportation, equipment, and overhead costs. The Township Engineer shall provide Developer a monthly accounting of the cost of engineering services. The Township will invoice the Developer monthly for the above noted costs.
- I. All layouts, staking and full-time construction observation shall be provided by Developer's Engineer (unless otherwise specified herein). Part-time observation of the construction, gathering necessary data and preparing record drawings and gathering necessary data and preparing easements shall be done by the Township.

- J. It is agreed between the parties that the Township Utility Department shall have jurisdiction and control of the water valves in the Township water distribution system and that any time the water valves must be turned on or off in order to facilitate the construction of the new water main, same shall be done under the jurisdiction of representatives of the Township Utility Department. Water meters shall not be installed until after the Township Engineer has certified the satisfactory completion of the work; however, temporary meters can be installed at the expense of Developer for water to be used during construction. Temporary water meters shall be installed by Township Utility Department personnel only after the pressure testing and "safe" water sampling is complete, and with the affirmation of the Township Engineer.
- K. The Township Engineer shall certify in writing the satisfactory completion of the work provided for hereunder which certificate shall be filed with the Township Clerk. The following items shall be completed before final certification can be made:
  - a. A satisfactory pressure testing of the water main shall be completed.
  - b. Receipt of tests of water taken from the water main showing same to have been tested "safe".
  - c. A satisfactory air test, deflection tests and CCTV inspection of the sanitary sewer mains shall be completed.
  - d. Developer shall prepare, execute and deliver a deed of grant from Developer to the Township covering all utility installation which is to be owned by Delta.
  - e. Final construction waivers of lien on the project shall be filed with the Township Engineering Department.
  - f. Easement grants, suitable for recording, granting to the Township access to the utility mains and appurtenances to be owned by the Township for construction, operation and maintenance purposes, including the right to make future hook-ups or connections to any of said lines shall have been delivered. The easement grants shall hold Developer responsible for costs of repair to any landscaping or other improvements that may exist within the easements and may become damaged or destroyed in the initial construction of the utilities. Upon acceptance of the utility by the Township, the Township shall be responsible for returning all seeded surface area, driveways and parking areas to substantially the same condition after repairs and/or maintenance are completed by the Township.
  - g. Such additional reasonable requirements as the Township Board, in its sole discretions, shall require.
- L. The parties may agree to allow the Township Engineer to authorize partial utilization of the systems as conditioned in the General Conditions of these Municipal Utility Standards. Such authorization may require the posting of a Surety Bond with the Township Clerk in the amount deemed necessary to complete the work.)

- M. No permits for utilities to be connected to any buildings shall be either requested or issued until after the facilities which are to become the property of the Township have been certified as satisfactorily complete by the Township Engineer.
  - N. It is further agreed by the parties that no building shall be occupied nor an occupancy permit be issued until after an access road shall be completed to assure access by emergency vehicles such as light axle ambulance, and the Township Engineer has certified the satisfactory completion of the work.
  - O. The Township agrees that when certification of final approval has been made by the Township Engineer, subject to a final financial accounting, and any other applicable considerations which may arise, the Township Board shall accept the facilities which are to be a part of the Township water or sanitary sewer system.
  - P. The Developer shall indemnify and hold harmless the Township and its agents and employees from and against any and all claims for damages or losses and expenses arising out of the construction operations in connection with this development.
  - Q. The Developer guarantees the materials and workmanship in the facilities for a period of not more than two (2) years from the date of partial utilization but at least one (1) year from the date of final acceptance of said facilities by the Township Board.
- 2. Upon satisfactory review of the conditions of the Utility Agreement, Developer shall execute same and return it to the Township Community Development Department for submittal to the Township Board of Trustees. Upon his satisfactory review of the final plan submittal, the Township Engineer shall sign same and submit the signed final plan drawing(s) to the Township Board.
  - 3. The Township Board shall consider the utility Agreement concurrently with the final plans and shall either approve or disapprove the proposal. The reasons for disapproval of the proposal shall be given in writing to the Developer allowing further negotiations if applicable.
  - 4. Upon approval of the Utility Agreement and the preliminary plan submittal by the Township Board, the Developer shall cause his engineer to proceed with the final plans in accordance with these Municipal utility Standards. The construction specifications shall meet the conditions of the General Conditions and the Municipal Utility Standards as applicable. The final engineering plans and specifications shall be reviewed by the Township Engineer as to conformity with these Municipal Utility Standards and with sound engineering practices.
  - 5. If the Township Engineer should disapprove the final plans, the reasons for disapproval shall be given in writing to the Developer and the Developer's Engineer. When the Township Engineer approves the final plans he shall so advise the Developer and the Developer's Engineer, and the Developer's Engineer shall furnish the required "sealed" prints of the final plans and specifications, as well as written approval of the plans by the Road Commission, the Drain Commissioner and a copy of the Soil Erosion and Sedimentation Control Permit as may be applicable, to the Township Engineer for submittal to the appropriate State agencies.

6. The Developer shall furnish the Township Engineer an electronic copy of the final plans and specifications for use during construction. Revisions to final plans during construction shall be subject to the approval of the Township Engineer.
7. As conditioned by the Utility Agreement, the parties involved shall timely complete the work of preparing acceptable easements. It shall be the intent of these Municipal Utilities Standards to encourage the location of the sewer and water facilities within the public road rights-of-way, insomuch as practical.
8. Upon written certification of final approval by the Township Engineer, and subject to a final accounting of Township-incurred expenses by the Township as may be applicable, and any of the applicable considerations which may arise, as may be applicable, and any of the applicable considerations which may arise, the Township Board shall accept the facilities which are to be a part of the Township's water or sanitary sewer systems or ownership and responsibility of operation and maintenance.



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**Delta  
Charter Township**  
**Community Development  
ENGINEERING DIVISION**  
7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**ADMINISTRATIVE PROCEDURES**

**SUBMITTAL AND APPROVAL FLOW CHART**

# GENERAL CONDITIONS

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GENERAL CONDITIONS

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EATON COUNTY, MICHIGAN

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GENERAL CONDITIONS  
MUNICIPAL UTILITY STANDARDS  
CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

1. TOWNSHIP'S STATUS DURING CONSTRUCTION.

The Developer shall at all times provide the Township and its representatives access and construction observation rights to the work wherever it is in preparation or progress. The Township shall have the right to make visual inspections, take physical tests, witness testing and require special inspections or testing whether or not the work is fabricated, installed or completed. The Township shall have the right to reject or disapprove work or materials which are defective or does not conform to specifications. Work or materials which are rejected or disapproved shall be satisfactorily corrected or removed from the site by the Developer. If the Developer does not correct such rejected or disapproved work within a reasonable time, fixed by written notice, the Township may cause to have it removed or repaired and charge the cost thereto to the Developer.

If during the progress of the work, conditions arise which merit changes to the originally planned work, the Developer shall cause such alteration as agreed to by the Township to be documented by revisions to the plans and specifications. Under such conditions and upon written notice to the Developer, the Township shall have the right to halt the work until proper revisions to the plans and specifications are complete.

The Developer may arrange for regular progress meetings during the course of the work. The Developer shall arrange for any special meeting of the various parties involved upon request of any of the parties.

Township construction observation personnel shall be afforded every opportunity to maintain a harmonious day-to-day working relationship with the Developer and his Contractor. Any objections on the part of the Township which do not appear to be satisfied by the day-to-day working relationship with the Developer and his contractor shall be stated in writing to the Developer. The Developer shall at once act upon the objection, making every reasonable effort to mutually resolve such objection.

No oral order, objection, claim or notice by any party to the others shall affect or modify any of the terms or obligations contained in any of the documents, and none of the provisions of the documents shall be held to be waived or modified by reason of any act whatsoever, other than by a definitely agreed waiver or modification thereof in writing, and no evidence shall be introduced in any proceeding of any other waiver or modification.

The Developer shall be responsible for all construction staking and layout work and the Township shall, as conditioned by the "Utility Agreement", collect the necessary data and prepare the record drawings. The Developer shall cooperate with the Township in collecting the necessary elevations and dimensions.



2. CONTRACTOR'S QUALIFICATION, SUPERINTENDENCE AND WORKMEN, AND DEVELOPER'S SUPERINTENDENT.

The Developer shall take all necessary measures to assure that the Contractor selected to do the work is qualified and capable of performing the work. The Developer shall advise the Township of the name of the Contractor and the Contractor's superintendent, as well as their respective mailing addresses, cell and telephone numbers, fax numbers and email addresses.

The Developer shall require that the Contractor give his personal superintendence to the work or employ a competent superintendent on the work at all times during performance of the work. The Developer shall require that the Contractor employ competent laborers and mechanics for the work, and comply with all applicable regulations of the U. S. Department of Labor and other agencies having jurisdiction.

The Developer shall stipulate an individual who will represent the Developer during the process of the construction work; the Developer shall advise the Township of this individual's name, mailing address and telephone and cell phone number.

3. INSURANCE AND INDEMNIFICATION.

The Developer shall not allow commencement of the work until his Contractor has furnished the Township with a current copy of certificates of insurance noting the Township as an additional insured.

The Developer's Contractor shall be solely responsible for any and all claims arising out of the Contractor's operations, or any subcontractor, supplier, or any agent, servant or employee of the several. The Developer shall require that his Contractor, subcontractors and suppliers shall indemnify and hold harmless the Township and its agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work.

The Contractor shall procure and maintain during the life of the Contract the following insurance coverages:

- (a) Workmen's Compensation – Insurance affording coverage in accordance with the Workmen's Compensation Laws in the State of Michigan.
- (b) Comprehensive General Liability – Insurance affording coverage for Bodily Injury Liability of not less than \$1,000,000 per Occurrence, \$2,000,000 aggregate and Property Damage Liability of not less than \$1,000,000 per occurrence, \$2,000,000 aggregate or a Single Limit Liability of not less than \$1,000,000 per occurrence with an aggregate of \$2,000,000. This policy shall also include coverage for Products Liability and/or Completed Operations. Coverage for the hazards or explosion, collapse and underground. Broad form Contractor's Property Damage, Independent Contractor's Coverage and Contractual Liability.

- (c) Comprehensive Auto – Insurance affording Fleet Automatic coverage on all Owned, Non-Owned or Hired Vehicles with limits of not less than \$1,000,000 Per Accident for Bodily Injury Liability and \$1,000,000 per Accident for Property Damage Liability, or a Single Limit of Liability of \$1,000,000 for Bodily Injury and Property Damage combined.
- (d) Notice of Cancellation – All policies affording coverage by this Article shall be endorsed to provide for a thirty (30) day prior written notice to be delivered to the Owner before any of the coverages afforded by these policies are reduced or cancelled.

#### 4. COMPLIANCE WITH THE LAW AND PERMITS.

The Developer shall, and shall require his Contractor and all subcontractors and suppliers, to comply with all applicable Federal, State, County, and Township laws, regulations, rules and ordinances. The Developer shall arrange for receiving and paying for permits and licenses required for prosecution of the work.

#### 5. PRECONSTRUCTION CONFERENCE.

The Township Engineer will schedule and conduct a preconstruction conference to be held prior to the commencement of work. The Township Engineer will include the following, not all inclusive, persons or parties at said conference:

- Developer and his Superintendent or coordinator
- Contractor and his Superintendent
- Township Engineer and Township Engineering Division Staff
- Developer's Engineer
- Township Utilities Director
- Township Water Distribution Supervisor
- Utility Company Representatives
- Eaton County Road Commission Representatives
- Eaton County Drain Commissioner's Representatives

#### 6. CONNECTIONS TO EXISTING PUBLIC SANITARY SEWER AND/OR WATER SYSTEM.

The Developer shall not connect to the existing Township Utility Systems without prior written approval of the Township Engineer and in the presence of a Township representative. The methods used to connect to existing Township utility systems shall be approved by the Township Engineer in writing prior to the commencement of the work. The Township Engineer may require the temporary bulkheading of the existing sanitary sewer system to preclude storm water or groundwater from entering the existing system during construction of the new facilities.

## 7. MATERIALS, TESTS, SHOP DRAWINGS AND SAMPLES.

Prior to the start of any of the work, the Developer's Engineer shall prepare a schedule of shop drawings, brochures and samples submitted for the Township Engineer's approval. Four (4) copies of shop drawings, brochures and samples to be reviewed by the Township shall be submitted to the Township Engineer; two (2) copies will be returned to the Developer.

The Township Engineer's review of materials and equipment shall constitute a general review and it is not intended that this review shall enter into every detail of the work. No work shall be undertaken until the Township has reviewed the shop drawings, brochures and samples required to be checked and returned same to the Developer.

Township review shall not relieve the Developer of responsibility for errors in the shop drawings and in the work. If requested by the Township, the Developer shall furnish satisfactory evidence that materials and equipment furnished are in compliance with the reviewed shop drawings.

Substitute materials or equipment shall be specifically approved by the Developer, or his Engineer, and the Township Engineer prior to installation of the materials and equipment. All materials and equipment shall be new and conform to specifications. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, except as otherwise specifically provided in the technical or supplemental specifications.

All materials and equipment proposed to be used in the work may be inspected and tested at any time and at any place during their preparation, storage and use. Unless otherwise stipulated, any and all tests shall be in accordance with the methods prescribed by the American Society for Testing and Materials. Any of the work which fails to meet the requirements shall be considered defective. The rejected or disapproved work or materials shall be subject to the requirements noted under "Township Status During Construction", herein.

Unless otherwise stipulated in the Utility Agreement, the Developer shall pay the cost of all inspection, tests and approval. Any work required to be inspected, tested, or approved, which is covered up prior to the application inspection, test or approval, shall be uncovered by the Developer and at the Developer's expense. The Developer, at his expense, shall remove any trench backfill as requested by the Township, to test, or re-test, if backfill material is known not to be up to specification requirements.

## 8. USE OF PREMISES.

The Developer shall confine his operations, including storage and spoil disposal, to areas permitted by law. The Developer shall obtain written approval for use of any premises which he does not own, for any purpose including storage and spoil disposal. Such written approvals shall clearly state that the Developer takes full responsibility for any liabilities arising from the use thereof, and that the Developer shall assure the

fulfillment of any applicable laws, or agreed to conditions. Further, copies of such written approvals shall be furnished to the Township Engineer.

## 9. PERMITS

The Developer shall not commence work without the applicable permits from the following agencies. The Developer shall furnish the Township Engineer a copy of all permit (s) secured for the work.

- Eaton County Road Commission
- Office of the Eaton County Drain Commissioner
- Michigan Department of Environmental Quality
- Michigan Department of Transportation
- Delta Charter Township Building Division
- Delta Township Manager (for earth changes over existing Township utilities)

## 10. SAFETY AND PROTECTION OF WORK.

Safety shall be the sole responsibility of the Developer and his Contractor(s). The Contractor shall comply with the current, applicable requirements of Federal and State of Michigan Occupational Health and Safety regulations during construction of the proposed development.

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect adjacent property from injury arising in connection with his construction, and shall be responsible for any damage and/or injury caused by or arising out of his operations.

## 11. TRAFFIC CONTROL.

The Developer shall post traffic control devices required for the protection of the work and for the protection and maintenance of traffic as it may be affected by the operations of this work and in accordance with the Maintaining Traffic Plan prepared for the project. The Developer shall closely coordinate with the Eaton County Road Commission, the Michigan Department of Transportation (as applicable), the Eaton County Sheriff Department, ETRAN, applicable school district transportation departments and the Delta Township Fire Department.

## 12. MAINTENANCE OF PUBLIC ROADS DURING CONSTRUCTION

The Developer shall keep the existing roads free of dust and soil material and shall minimize dust from his off-road operations so as to minimize the nuisance therefrom. The Developer shall require the site of the work and other premises where storage, disposal and other construction-related work is in progress to be maintained in a clean and orderly fashion which will promote safety and minimize nuisance. Open burning shall be subject to authorization by the Township Fire Department.

### 13. WORK BY OTHERS

Prior to the start of work, the Developer shall investigate the likelihood of other parties performing work in the vicinity of his proposed operations, and every precaution shall be taken to reasonably afford all parties the opportunity to do their work.

### 14. REPORTS, RECORDS AND DATA.

The Developer shall, and shall require of his Contractor and all subcontractors the submission to the Township of such schedule of quantities, progress schedules, payrolls, reports, estimates, records and other data as the Township may request concerning work performed or to be performed under the Utility Agreement.

The Contractor shall maintain one (1) set of marked-up paper copies of the plans, specifications and shop drawings, to show the actual installation where the installation varies from that shown originally on the approved pre-construction plans. Upon completion of the project and prior to acceptance by the Township, the Contractor shall deliver to the Township Engineer the marked-up plans, specifications and shop drawings for development of record drawings by the Township.

The location of sanitary sewer wyes, manholes and the intersection of the service lateral and the respective property line and the location of water system valves and the intersection of the water service lead and the respective property line shall be witnessed from at least two permanent topographic features or the location shall be established by GPS methods.

### 15. CERTIFICATION OF PROGRESS OF WORK.

Prior to the Township Engineer certifying to the completion of the facilities, the Developer may request a certification of the progress of the work. Normally such requests as to progress may not be made more frequently than once a month. Requests for certification of the progress of the work shall be directed to the Township Engineer, and the Township Engineer shall respond within ten (10) working days. The Developer shall furnish the necessary records and data as may be requested by the Township. The certificate of the progress of the work shall be used to assist the Developer in his general financing and to meet any applicable requirements that may exist in the Utility Agreement.

### 16. SUBSTANTIAL COMPLETION.

Substantial completion shall be recognized as completion of that phase of the work which is not subject to other items of work required by the total development project; i.e., the water mains shall be complete, including testing, the manholes finished to the level of the castings, water valves installed boxes not finally adjusted, hydrants installed but still subject to final adjustment, stub-ins complete and other work required for final completion. The effective date of substantial completion shall be taken as that date which the Township Engineer certifies to the substantial completion.

#### 17. PARTIAL UTILIZATION.

The Developer shall not allow connections of individual buildings and partial utilization of the proposed systems prior to receiving certification to the substantial completion of the work. As may be set by the Utility Agreement, the Developer may request authorization to use all or part of the proposed system prior to final acceptance of the work. Such request shall be directed to the Township Engineer and shall include a letter from the Developer to satisfy his intention to complete all the work per specifications and to assume full responsibility for maintaining and cleaning the incomplete work until final acceptance.

The Township Engineer may authorize partial utilization of the proposed system subsequent to affirmation by the Township Building Division and the Utility Department Director. As a condition of authorization of partial utilization, the Township Engineer may require temporary staking of valves and manholes to minimize damage to the facilities during the completion of the work. Partial utilization shall not be allowed for any facilities not situated within either a dedicated public right-of-way or recorded easement acceptable to Delta. The Township may require the posting of surety to assure the completion of the work, as may be conditioned by the Utility Agreement.

#### 18. FINAL ACCEPTANCE

The Developer shall make application to the Township Engineer for final acceptance. The application shall include a certificate by the Developer that all work is complete as conditioned by the Utility Agreement and final waivers of all claims from the Developer, his contractor, any subcontractors and all suppliers.

#### 19. SOIL EROSION AND SEDIMENTATION CONTROL

The Developer shall secure the Soil Erosion and Sedimentation Control (SESC) Permit from the Office of the Eaton County Drain Commissioner and shall be responsible for all soil erosion and sedimentation which may be caused by his operations in accordance with Public Act 347 of 1972. The conditions of any applicable SESC Permit shall be strictly adhered to.

#### 20. NORMAL WORK DAY AND WORK HOUR

In order to properly and adequately schedule the presence of the Township Engineer or his representative, the Developer shall require his Contractor to notify the Township Engineer as far as possible in advance of his intentions to carry on the work. The Contractor shall meet the requirements related to times of operation and decibel levels outlined in the Delta Township Noise Control Ordinance.

## 21. CONFINED SPACE ENTRY

Entry into any portion of the existing sanitary sewer collection system or water system valve manholes or those structures under construction for any reason shall be made in accordance with the MIOSHA Safety Standards. The Contractor shall contact the Township prior to any confined space entry and submit a copy of their confined space entry plan for review by Township Utility Department staff. After entry has been granted, the following will be documented and a copy provided to the Township to be kept on file. The following shall be documented:

- (a) Initial air quality testing results
- (b) Date & time of entry and exit
- (c) Any hazards encountered
- (d) Exiting air quality testing results
- (e) Name of Entrant and Foreman/Supervisor

## 22. NORTH AMERICAN MANUFACTURE REQUIREMENTS

Unless otherwise approved by the Township Engineer or Utilities Director, all materials used in the construction of water and sanitary sewer infrastructure to be owned by the Township shall be manufactured in North America.

DESIGN STANDARDS  
FOR  
WATER AND SANITARY SEWER UTILITIES



DESIGN STANDARDS FOR TOWNSHIP-OWNED  
WATER AND SANITARY SEWER UTILITIES

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

**A. GENERAL REQUIREMENTS:**

1. Any sanitary sewer which serves one or more buildings of multiple ownership shall be owned by the Township.
2. All proposed water mains serving more than one building, utilizing or capable of utilizing potable water from the Township water system shall be owned by the Township, including all fire hydrants, building services or to the point of an approved backflow device.
3. The Township, at its option, may require sanitary sewers and/or water mains to be owned by the Township if said utilities may potentially serve properties beyond those properties proposed to be served.
4. Sanitary sewers, sewage lift stations and force mains and water mains may be required to be oversized or placed at greater depths if it is determined to be necessary for future extensions to the systems. The cost of oversizing or construction to greater depths may be borne or shared in part by the Township, subject to formal action by the Township Board.

**B. WATER MAIN DESIGN: Shall comply with the following requirements:**

1. Recommended Standards for Water Works (Ten States Standards), Delta Township Fire Department Supplemental Rules & Regulations and these Municipal Utility Standards.
2. Medium and high density residential, office and commercial developments shall be served by no less than 8-inch diameter water mains, and industrial developments by no less than 12-inch diameter water mains.
3. Water lines used as feeder mains, the mile loops or other arterial mains, shall be sized by the Township Engineer.
4. Fire hydrants shall be installed in accordance with the Delta Township Fire Department Supplemental Rules & Regulations. The face of the hydrant pumper connection shall be no closer than 3.0 feet from the back of curb.
5. Fire hydrants shall be 6-inch diameter and provided with a gate valve to isolate the hydrant from the water distribution system. Six (6) inch diameter hydrant leads shall not exceed 40 feet in length; hydrant leads exceeding 40 feet in length shall be 8-inch diameter.

6. For new residential developments, water mains shall be located nine (9) feet from the property line and on the north side of roads in an east-west orientation and on the west side of roads in a north-south orientation.
7. Main line water valves shall be spaced in accordance with Ten States Standards, unless otherwise approved in writing by the Township Engineer. Main line valves shall be located near each tee or cross at property lines extended, at the terminus of mains to accommodate future extensions, or as determined by the Engineer. Main line valves shall, generally, be located behind the back of curb or outside the roadway shoulders, and not within the paved surface of the roadway.
8. Two (2) main line valves shall be provided at each tee and three (3) main line valves at each cross.
9. Water system valves larger than 12-inch diameter shall be installed in a precast concrete vault or manhole structure of the size/diameter approved by the Township Engineer.
10. A minimum of five (5) feet of cover shall be provided over the top of the water main pipe. Water main shall be encased in an approved polyethylene tube as specified in these Standards.
11. Connection to the Township Water System shall be by a "live tap" connection, unless otherwise approved by the Township Engineer.
12. Water service leads shall be extended to a minimum of ten (10) feet past the property line and marked with a 4x4 treated post. The top of the post shall extend at least 12 inches above final grade and painted blue. Water service leads shall be located at or near the center of the lot, and provide a minimum of ten (10) feet separation from the sanitary sewer and storm laterals.
13. The minimum easement width for water main located outside of the public right-of-way shall be 20 feet.

**C. SANITARY SEWER DESIGN: Shall comply with the following requirements:**

1. The Ten States Standards for Sewage Works and these Municipal Utility Standards.
2. For new residential developments, sanitary sewer mains shall be located within the dedicated road right-of-way seven (7) feet east of the road centerline for north-south streets and 7 feet south of the road centerline for east-west streets.
3. Manholes shall be positioned so that straight lines of mains between manholes shall not exceed 400 feet unless approved in writing by the Township Engineer.
4. Top of manhole castings shall be so positioned as to be above any potential surface flooding or ponding.
5. Grades shall be established so all basements may be served by a gravity sewer unless otherwise approved by the Township Engineer. The plans shall show the

proposed location and elevation of each sewer stub-in at the applicable right-of-way line or easement line.

6. Sanitary sewer manholes shall be located such that maintenance vehicles shall have access to the manholes for maintenance purposes. Where easements are involved, the manholes shall be located near drives, parking lots or other vehicular access points. All weather maintenance drives shall be provided for access to all Township sanitary sewer manholes within easements or other areas not readily accessible to Township sewer system maintenance vehicles.
7. Sanitary service laterals shall be constructed to a minimum of ten (10) feet past the property line and shall be constructed to a depth of at least nine (9) feet below final grade at its terminus. The end of the lateral shall be marked with a 4 x 4 treated post extended at least 12 inches above final grade and shall be painted brown. Sanitary service laterals shall be located at or near the center of the lot, and provide a minimum of ten (10) feet separation from the water service lead and the storm sewer lateral.
8. The minimum easement width for sanitary sewer located outside of the public right-of-way shall be 30 feet or a width of two times the maximum depth of the sanitary sewer, whichever is greater.
9. The minimum requirements for invert drops through manhole structures shall be 0.10 feet. Manhole structures with horizontal alignment deflections (from straight through) of greater than 45 degrees shall include a 0.2 foot drop between inlet and outlet. For changes in pipe diameters, additional drop through the manhole is required based on matching at 0.8 times the diameter of the inlet and outlet pipes. Flow channel width shall match the diameter of the pipe on the downstream side of the manhole.
10. Existing manholes and concrete pipes that are designed to receive discharges from sewage force mains shall be lined to protect the structures from corrosion. Lining materials and methods shall be approved by the Township Engineer. The concrete pipe lining shall be completed for a distance of 1,000 feet or three stretches of sewer between manholes, whichever is greater or as directed by the Township Engineer. All downstream manholes within the 1,000 foot lining limits shall also be lined. For force main discharges into new manholes, the manholes shall be polymer concrete units meeting the requirements of the Special Provision for Polymer Concrete Sanitary Manholes.
11. Industrial users or designated commercial users, as determined by the Township Utilities Director, shall provide a sanitary sewer manhole on their lateral for sampling purposes at or near the site property line/right-of-way or other location approved by the Township Engineer. The sampling manhole shall be constructed such that the sanitary sewer is constructed straight-through the manhole. Easements or ingress/egress agreements shall be granted by the Developer to the Township if the manholes are located on private property.
12. The Township will provide the design and construction documents for the sewage lift station and the sizing of the discharge force main. The Developer shall be responsible for the force main design from the lift station site to the proposed discharge manhole. The Developer shall provide to the Township Engineer a basis of

design for the wastewater flow tributary to the lift station and a topographic survey along the proposed force main route.

- a. Lift station design will address general aesthetics, compatibility with the surrounding environment and the incorporation of low maintenance landscaping and decorative/screening fencing.
- b. Paved access roads to the lift station shall be provided; roads shall be HMA or concrete capable of supporting Township sewer maintenance equipment.
- c. In general, stations will consist of duplex submersible pump lift stations with precast wet well chamber, exterior valve and flow meter chambers and a fixed set, natural-gas or diesel fueled emergency generator.
- d. The Township will provide the electrical power/control panel for the lift station and install the panel(s) on the pads provided by the Developer. The Developer shall coordinate the installation of the electrical panel(s) with the Township Utility Director prior to commencement of construction.
- e. Lift station drawings and related technical specifications prepared by the Township will be provided to the Developer for inclusion in the Developer's bid package. The cost of the lift station design and the electrical power/control panel furnished by the Township will be the responsibility of the Developer. The Township will invoice the Developer for the lift station design and power/control panel costs and payment shall be received by the Township prior to the commencement of construction.
- f. The Township will arrange for a technical representative of the pump manufacturer to inspect the equipment installation, supervise mechanical adjustments, conduct startup of the equipment, supervise testing and instruct Township staff in the operation and maintenance of the lift station.
- g. Sixty (60) days after successful startup of the lift station, the Developer shall conduct a wet well drawdown test to verify the capacity and head conditions of the lift station. The Developer shall provide all required testing equipment and personnel and tests shall be conducted in the presence of Township Utility Department staff.

## SPECIAL PROVISIONS

INDEX OF SPECIAL PROVISIONS  
MUNICIPAL UTILITY STANDARDS

CHARTER TOWNSHIP OF DELTA  
EATON COUNTY, MICHIGAN

Projects shall be constructed in accordance with the 2012 Standard Specifications for Construction, Michigan Department of Transportation, or the latest version thereof and the following Special Provisions.

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SPECIAL PROVISION  
FOR  
**AUDIO-VISUAL RECORD**

DCT

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5//2012

**a. Description.** If required by the Township Engineer, the Contractor shall provide an audio-visual record of the public rights-of-way and dedicated easements that may be disturbed by construction. The work of **Audio-Visual Record** shall include providing an audio-visual recording of physical, structural and aesthetic conditions of public rights-of-way and dedicated easements as they exist prior to the beginning of any construction activities. The audio-video record shall be professional quality, providing a clear and accurate visual record of existing conditions.

1. Prior to commencing any work, a continuous color audio-visual record shall be made of the area and delivered to the Township Engineer.
  - A. Two (2) sets of the audio-video DVD(s) of the project area shall be provided to the Township Engineer. The DVD(s) shall be produced one (1) week prior to placement of materials or equipment in the construction area.
2. The audio-visual record shall be color utilizing the DVD format or other format acceptable to the Township.
3. The audio-video record shall be done by professional electrographers actively engaged in pre-construction color audio-video recording. The audio-video firm shall be acceptable to the Owner.

**b. Methods of Construction**

1. When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall not be less than 10 feet to ensure proper perspective. In some instances, audio-video coverage shall be required in areas not accessible on conventional wheeled vehicles. Such coverage shall be obtained by walking or by special conveyance approved by the Township.
2. The camera(s) shall be a color video camera and shall have a horizontal resolution of at least 300 lines at center. The camera shall be a professional quality camera acceptable to the Township Engineer.
3. Each record segment shall begin with the current date, project name, project number and municipality, and be followed by the general location, e.g., name of the street or location of the "cross country" line, viewing side and direction of progress.
4. All video recordings shall, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording, as well as the corresponding engineering station numbers.

- A. Time and Date Information: Shall appear on the upper left-hand third of the viewing screen. The time information shall consist of hours, minutes and seconds, separated by colons, e.g., 11:25:14. The date information shall consist of month, day and year, e.g., 1/1/02, and shall be placed directly below the time information.
  - B. Engineering Station Numbers: Shall be continuous, accurate, correspondent to the project stationing and shall include the standard engineering symbols, e.g., 1+25. This information shall appear on the lower half of the viewing screen.
  - C. Additional Information: Below the engineering station, periodic transparent alpha numeric information consisting of the name of the project, name of the area covered, direction of travel, viewing side, etc. shall appear.
- 5. All recording shall be done during times of good visibility. Auxiliary lighting may be required to fill in shadow areas and/or when recording inside a building. The lighting shall be sufficient to illuminate all details in the area. Lighting shall be furnished upon the request of the Engineer.
  - 6. Audio description shall be made simultaneously with video coverage.
    - A. Coverage: Shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, streets (including condition of pavement for full width), landscaping, trees, culverts, catch basins, manholes, head walls, retaining walls, fences, visible utilities, and all buildings located within such zone of influence. Of particular concern are any existing defects exhibited by above mentioned surface features.
    - B. Houses and Buildings: Shall be identified visually by house or building number, when possible, in such a manner that the progress of the record and the proposed construction may be located by reference to the houses and buildings.
    - C. General: Recording shall not be done during periods of visible precipitation or when more than 10% of the ground area is covered with snow, leaves, flood waters or debris.
  - 7. The rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 50 feet per minute. Panning rates and zoom-in/zoom-out rates shall be controlled sufficiently such that the rate will produce clarity of the object viewed during playback of the record.
  - 8. DVD(s) shall be properly identified by number, location and project name in a manner acceptable to the Township Engineer. Records of the contents of each DVD shall be supplied by a sheet identifying each segment in the record by location, e.g., roll number, street or road viewing, counter number, viewing side, point starting from, traveling direction and ending destination point.



SPECIAL PROVISION  
FOR  
SPECIAL CONTROLS

DCT

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5/2012

**a. Description.** It is the responsibility of the Contractor to take such measures as may be necessary and to comply with all federal, state, and local laws and regulations for the protection of the public health, safety, welfare, and environment in the performance of the work.

The following are specific requirements with regard to environmental protection matters:

1. Control of Air Pollution

A. Dust Control: During the construction of any project, adequate dust control measures shall be maintained by the Contractor so as not to cause detriment to the safety, health, welfare, or comfort of any person or cause damage to any property, residence or business. Dust control shall be at the Contractor's expense.

B. Open Burning: At the site of land clearing operations, the burning of trees, logs, brush, or stumps is not allowed.

2. Control of Water Pollution and Siltation: Construction operations shall be conducted in such a manner as to prevent sedimentation of watercourses, streams, lakes or wetlands, and in accordance with the Part 91 of Act 451, P.A. 1994, as amended, A Soil Erosion and Sedimentation Control permit shall be secured from the office of the Eaton County Drain Commissioner prior to the commencement of construction.

3. Control of Hazardous Materials: All hazardous materials, hazardous waste, toxic materials, or polluting materials shall be used, stored, and disposed of according to applicable federal, state, and local laws and regulations.

4. Noise Pollution: The Contractor shall comply with the requirements of the Township Noise Ordinance.

5. Housekeeping: The project work area shall be maintained in a neat and clean condition and all debris and waste materials shall be removed from work areas.

6. Hauling on Local Roads and Streets: The Contractor is advised that the hauling of construction materials over local roads and streets must be with the approval of the Eaton County Road Commission and Delta Charter Township. To the greatest extent possible, the Contractor shall utilize Township designated truck routes as defined in the Township Code of Ordinances. The Contractor is responsible for preventing the tracking of material onto local roads and streets. If any material is tracked onto local roads or streets, it shall be removed.

7. Additional Requirements: The Contractor shall comply with the requirements of the Township's Construction Impacts Abatement Ordinance include in the Township Code of Ordinances.

SPECIAL PROVISION  
FOR  
**DEWATERING**

DCT

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5/2012

**a. Description.** This Special Provision applies to all work related to installation, operation, and removal of dewatering systems necessary for construction.

1. Performance Requirements

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control ground-water flow into excavations and permit construction to proceed on dry, stable subgrades.
  - 1) Maintain dewatering operations to ensure erosion control, stability of excavations and constructed slopes, that excavation does not flood, and that damage to subgrades and permanent structures is prevented.
  - 2) Prevent surface water from entering excavations by grading, dikes, or other means.
  - 3) Accomplish dewatering without damaging existing buildings adjacent to excavation.
  - 4) Remove dewatering system if no longer needed.

2. Submittals

- A. Shop Drawings for Information: Show arrangement, locations, and details of wells and well points; locations of headers and discharge lines; and means of discharge and disposal of water.
  - 1) Include layouts of piezometers and flow-measuring devices for monitoring performance of dewatering system.
  - 2) Include a written report outlining control procedures to be adopted if dewatering problems arise.
  - 3) Include Shop Drawings signed and sealed by the qualified professional engineer responsible for their preparation.
- B. Qualification Data: Dewatering contractor shall have a minimum of 10 years of work experience involving projects of similar scope and complexity.
- C. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by dewatering operations.
- D. Record drawings at project closeout identifying and locating capped utilities and other subsurface structural, electrical, or mechanical conditions performed during dewatering.
  - 1) Note locations and capping depth of wells and well points.

### 3. Quality Assurance

- A. Regulatory Requirements: Comply with water disposal requirements of authorities having jurisdiction.

### 4. Project Conditions

- A. Survey adjacent structures and improvements, employing a qualified professional engineer or land surveyor, establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
  - 1) During dewatering, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Engineer if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

## **b. Construction**

### 1. Preparation

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.
  - 1) Prevent surface water and subsurface or groundwater from entering excavations, from ponding on prepared subgrades, and from flooding site and surrounding area.
  - 2) Protect subgrades and foundation soils from softening and damage by rain or water accumulation.
- B. Install dewatering system to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
  - 1) Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the Township Engineer and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

### 2. Installation

- A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
- B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed, or until dewatering is no longer required.

- C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.
    - 1) Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
  - D. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.
    - 1) Maintain piezometric water level a minimum of 24 inches below surface of excavation.
  - E. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others. Provide sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.
  - F. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to the Township.
    - 1) Remove dewatering system from project site on completion of dewatering. Well abandonment shall be in accordance with Part 127, Act 368, PA 1978 and all State of Michigan requirements.
  - G. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.
3. Electrical Power Service
- A. Contractor shall be responsible for coordinating with Lansing Board of Water and Light or Consumers Energy for a temporary power drop for dewatering equipment.
  - B. Generators used to provide the electrical service shall be housed in sound attenuating enclosures with critical-area-type silencers. The use of generators shall comply with the Township Noise Ordinance.
- 4 Observation Wells
- A. Provide, take measurements, and maintain two (2) observation wells or piezometers and additional observations wells as may be required by authorities having jurisdiction.
  - B. Observe and record daily elevation of ground water and piezometric water levels in observation wells.

- C. Repair or replace, within 24 hours, observation wells that become inactive, damaged, or destroyed. Suspend construction activities in areas where observation wells are not functioning properly until reliable observations can be made. Add or remove water from observation-well risers to demonstrate that observation wells are functioning properly.
- 1) Remove from project site on completion of dewatering. Well abandonment shall be in accordance with Part 127, Act 368, PA 1978 and all State of Michigan requirements.

SPECIAL PROVISION  
FOR  
**TEMPORARY BYPASS PUMPING**

DCT

1 of 4

5/2012

**a. Description.** The work of **Temporary Bypass Pumping** shall consist of furnishing all labor, supervision, tools, equipment, appliances, and materials to perform all operations in connection with **Temporary Bypass Pumping** of raw sewage.

1. Performance Requirements.

- A. Design, furnish, install, test, operate, monitor, and maintain temporary bypass pumping system to prevent sewage overflows and provide reliable sewer service to the users of the sanitary sewer at all times. Contractor shall be responsible for all damages caused by temporary bypass pumping.
  - 1) Install and test the bypass pumping system and all components prior to commencing the proposed work..
  - 2) Maintain bypass pumping in a manner that will not cause surcharging of sewers, damage to sewers, and protect public and private property from damage and flooding.
  - 3) Prevent sewage spills from overflowing existing flow channels, splashing or leaking pipe or equipment.
  - 4) Accomplish bypass pumping without damaging existing buildings or structures.
  - 5) Remove the temporary bypass pumping system upon substantial completion of the Work.
- B. The Contractor shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units), conduits, all power, and all labor required for bypass pumping. No interruption in the flow of the sewage will be allowed.

2. Design Requirements.

- A. Pumps must be capable of passing a minimum of a 3" solid.
- B. Pumps utilized in the bypass shall be electric driven, end suction, centrifugal or submersible pumps, capable of priming and re-priming automatically, without assistance. Trash pumps utilizing foot-valves will not be permitted. All pumps must be constructed to allow dry running for long periods to accommodate the cyclical nature of effluent flows.
- C. Provide all controls required for automatic operation of each pump and automated pump watch.

- D. Discharge piping shall be constructed of rigid pipe and fittings with positive, restrained joints. Piping shall have a pressure rating equal to 1.5 times the working pressure at peak flow.
  - E. Bypass pumping shall have sufficient capacity to pump all sewage flows up to the peak flow as determined by the Township Engineer. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow can be safely diverted around the section of work. Bypass pumping system will be required to operate continuously until the proposed Work completed. Contractor shall provide an automated pump watch.
  - F. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. The system shall be designed with back up pumping equipment installed and ready for immediate use in the event that the primary system should fail. Providing one pump on standby, equal to the largest pump in the bypass pumping system, shall constitute the redundancy.
  - G. The maximum water level in the influent sewer cannot exceed the crown of the existing influent sewer.
  - H. Contractor shall have designated personnel and equipment for on-call maintenance and operation of the bypass pumping facility 24 hours a day, 7 days a week during bypass pumping operations. Contractor shall assign a service truck outfitted with the appropriate equipment to ensure that the bypass can be maintained in the event of mechanical failures. Contractor shall an emergency contact list to the Township.
3. Electrical Power Service
- A. Contractor shall be responsible for coordinating with the applicable electrical service provider for a temporary power drop.
  - B. Generators used to provide the electrical service shall be housed in sound attenuating enclosures with critical-area-type silencers. The use of generators shall comply with the Township Noise Ordinance.
  - C. Back up electrical power supply shall be provided. The back up power supply must be installed and ready for immediate use, including all cabling, disconnect panels, and switch gear.
4. Submittals
- A. Pumping Submittals: Detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the temporary bypass pumping of the existing wastewater flows. Include schedules, locations, elevations, capacities of the equipment, materials, and all other incidental items necessary and/or required to insure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements specified in the contract documents. Include the following:

- 1) Staging areas for temporary pumps.
  - 2) Number, size, material, location, and method of installation of suction piping.
  - 3) Number, size, material, method of installation and location of discharge piping.
  - 4) Bypass pump sizes, capacity, and quantity of each size pump to be on site as well as the power requirements.
  - 5) Calculations of pump capacity and Total Dynamic Head, including the calculations that are used to derive the system TDH. Data shall include calculation determining the Net Positive Suction Head available and Net Positive Suction Head required by each pump. Pump curves shall be submitted.
  - 6) Standby power generator size and location.
  - 7) Thrust and restraint block sizes and locations.
  - 8) Method of noise control for each pump and/or generator.
  - 9) Any temporary pipe supports and anchoring required.
  - 10) Operating weights for equipment to be supported on existing structures.
  - 11) Scheduling for installation of and maintenance of bypass pumping lines.
  - 12) Emergency contact list.
- B. Qualification Data: Provide at least five (5) references of projects of a similar size and complexity as this project performed within the last five years.
5. Quality Assurance
- A. Regulatory Requirements: The bypass system shall comply with the requirements of all codes and regulations of authorities having jurisdiction.
  - B. Pre-installation Conference: Conduct conference at project site with the Township Utility Department staff and the Township Engineer prior to installation of bypass pumping equipment.
6. Project Conditions
- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by the Township or others unless permitted in writing by the Township Engineer and then only after arranging to provide temporary utility services according to requirements indicated.
  - B. Confined Space Entry: Confined Spaces: The Contractor shall comply with MIOSHA Part 90 and Part 490 (325.63001) and all state and federal requirements associated with confined spaces.



**b. Construction Method**

1. Preparation - Install temporary bypass pumping system to ensure minimum interference to Township's operation of the existing facilities. Keep driveways and entrances serving premises clear and available to Township staff and emergency vehicles at all times.
2. Installation
  - A. The Contractor shall construct temporary bypass pumping at locations required to maintain wastewater flows in the Township sanitary sewer system.
  - B. Provide standby equipment on-site, installed and available for immediate operation, to maintain bypass pumping on continuous basis if any part of system becomes inadequate or fails. If bypass pumping requirements are not satisfied due to inadequacy or failure of the bypass pumping system, restore damage at no additional expense to the Township.
  - C. Damages: Promptly repair damages to adjacent facilities caused by bypass pumping operations.
  - D. Demonstrate that the pumping system is in good working order and is sufficiently sized to successfully handle flows by performing a test run for a period of 24 hours prior to beginning the bypass pumping operation.
3. Bypass Pumping
  - A. Contractor shall have designated personnel and equipment for on-call maintenance and operation of the bypass pumping facility 24 hours a day, 7 days a week during bypass operations.
  - B. Contractor shall provide all maintenance and operation to maintain bypass pumping operation until completion of the Work.
  - C. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

**SPECIAL PROVISION  
FOR  
STEEL CASING PIPE, BORED AND JACKED IN PLACE**

DCT

1 of 2

5/2012

**a. Description.**

1. General

- A. This work shall be in accordance with Section 401.03.G of the 2012 MDOT Standard Specifications for Construction, and shall consist of constructing access pits, bored and jacked in place steel casing pipe, removal of the access pit soil support system, and backfilling of access pits.
- B. The Contractor shall be responsible for the design of the soil support for the access pits. Submit sheeting and bracing plans for the jacking pits to the Township Engineer for record purposes only.
- C. The Developer shall secure all necessary approvals and permits from the agency owning or responsible for the land/facilities across which the proposed utility is to be constructed via bored and jacked construction.

**b. Materials.**

1. Steel Casing Pipe

- A. Steel casing pipe material, shall be ASTM A-139, Grade B steel pipe. Casing pipe wall thickness shall be a minimum of 0.250-inches for casing pipe diameters through 24-inch and 0.312-inches for 30 and 36-inch casing pipe, or as required by the controlling agency.

2. Grout

- A. Materials shall meet the requirements specified in, Section 702 of the 2012 Standard Specifications. The mixture shall consist of 100 lbs/cy Portland cement lbs/cy fly ash (Class F) and approximately 80 gal/cy water to produce the desired flowability.

**c. Construction Methods.**

- 1. Steel Casing Pipe Bored and Jacked in Place - The steel casing pipe shall be jacked and bored in reasonably close conformance to line and grade as shown on the construction drawings. The line and grade of the steel casing pipe shall be such that the carrier pipe can be placed within tolerance of the line, grade, and inverts as shown on the construction drawings. If indicated on the drawings, casing pipe shall be provided with casing vents on each end.
- 2. Access Pits - Access pits shall be constructed using methods that minimize group vibrations. Sheet piling, if used, shall be in accordance with MDOT Specification Section 704, Steel Sheet Piling and Cofferdams. Soil support system shall be removed to the bottom of the access pit; mud mat and piling below this elevation may be left in place.

Access pit shall be backfilled in accordance to the applicable sewer specification.

3. Grouting - Annular space between the casing pipe and the carrier pipe shall be sealed grouted to preclude movement and maintain the alignment of the carrier pipe. As an option, manufactured spacers may be used in lieu of grouting.
4. Rock Removal - Rock obstructions which prohibit the advancement of the boring shall be removed. The Contractor shall notify the Township Engineer immediately upon encountering an obstruction which prohibits the advancement of the boring.

SPECIAL PROVISION  
FOR  
SLOPE RESTORATION

DCT

1 of 1

5/2012

**a. Description.** The work of **Slope Restoration** shall consist of preparing for turf establishment all right-of-way and easement areas disturbed by construction, and applying topsoil, fertilizer, seed, and mulch to those areas.

**b. Materials.** The materials and application rates specified in Sections 816 and 917 of the 2012 MDOT Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Township Engineer.

**c. Methods of Construction.** Begin this work as soon as possible after final grading of the areas designated for turf establishment but no later than the maximum time frames stated in Subsection 816.03 of the MDOT Standard Specifications. It may be necessary, as directed by the Engineer, to place materials by hand.

Prior to placing topsoil, shape and compact all areas to be seeded. Place topsoil to the minimum depth indicated above, to meet proposed finished grade. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, this additional depth must be filled using topsoil or, at the Contractor's option, embankment. Furnishing and placing this additional material is included in this item of work.

If an area washes out after this work has been properly completed and approved by the Township Engineer, the Contractor shall make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch. The cost for replacement of the slope restoration shall be paid for as extra work.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement shall be at the Contractor's expense.

**SPECIAL PROVISION  
FOR  
WATER MAIN**

DCT

1 of 8

1/17/2013

**a. Description.** The work of **Water Main** shall consist of furnishing all labor, equipment, and materials required for the installation of all water main and appurtenances as shown on the plans and specified herein, including testing and disinfection.

**b. Materials**

1. Detailed material lists and specifications for all water system materials shall be submitted to the Engineer for review. All water system materials shall be new and shall meet the requirements of AWWA, the 2012 MDOT Standard Specifications for Construction, and the following.
2. Ductile Iron Water Main: Shall be Ductile-Iron (D.I.) in accordance with ANSI/AWWA C151/A21.51 Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids and the following:
  - A. Pressure Class: Pipe shall be Pressure Class 350, unless otherwise approved by the Township Engineer.
  - B. Pipe Markings: All pipes delivered to the job site shall bear the marks required by ANSI/AWWA C151/A21.51.
  - C. Exterior Coating: Shall be bituminous, 1 mil thick.
  - D. Cement-Mortar Lining: Shall be in accordance with ANSI/AWWA C104/A21.4, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - E. Mechanical Joints and Push-on Joints: Shall be in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings. Bolts and nuts shall be high strength corrosion resistant alloy with hex head nuts.
  - F. Locking Gaskets: Locking gaskets shall be installed on push-on joint type water main and fittings at locations and intervals required for thrust restraint. Gaskets shall be rated for a maximum working pressure of at least 250 psi and they shall be a boltless, integral restraining system. Gaskets shall be Fast-Grip by American Ductile Iron Pipe; Field Lok by U.S. Pipe and Foundry Company; or approved equal.
  - G. Fittings: Shall be in accordance with ANSI/AWWA C153/A21.10 Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in., for Water and Other Liquids.
  - H. Electrical Continuity: Shall be bronze wedges or continuity straps.

- I. Polyethylene Encasement: Shall be 8 mil polyethylene tube to be conforming to ANSI/AWWA C105/ A21.5.
3. Polyvinyl Chloride (PVC) Water Main: Shall be in accordance with ANSI/AWWA C909 Molecularly Oriented Polyvinyl Chloride Pressure Pipe and the following:
  - A. Pressure Class: Shall be Pressure Class 305, unless otherwise approved by the Township Engineer.
  - B. Pipe Markings: All pipes delivered to the job site shall bear the marks required by ANSI/AWWA C909.
  - C. Push-On Joint Restraint: Refer to paragraph b.6.A of this Special Provision.
  - D. Fittings: Shall be in accordance with ANSI/AWWA C110/A21.10 Ductile-Iron and Gray-Iron Fittings.
  - E. Polyethylene Encasement of Fittings: All fittings shall be encased; encasement shall be 8 mil polyethylene tube to be conforming to ANSI/AWWA C105/ A21.
  - F. Tracer Wire: Shall be Copperhead #14 CCS High Strength Soft Drawn 250".
  - G. Tracer Box: Shall be Valco Tracer Wire Access Box, Bingham & Taylor 2-1/2 Inch test box or equal.
4. Valves and Valve Boxes
  - A. General Requirements
    - 1) Working Pressure: 150 psi minimum.
    - 2) Joints: Shall be mechanical joints in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings. End flanges, if specified, shall be ANSI B16.1 Class 125.
    - 3) Direction of Opening: Left.
  - B. Resilient Seated Gate Valves (Through 12-inch Diameter): Shall be in accordance with ANSI/AWWA C509 Resilient-Seated Gate Valves for Water Supply Service and the following:
    - 1) Body Construction: ASTM A126 Class B, cast iron.
    - 2) Operator: 2-inch square nut, unless otherwise noted on the plans or in the valve schedule; open left.
    - 3) Manufacturer: American Flow Control Series 2500 or approved equal.
  - C. Butterfly Valves (Larger than 12-inch Diameter): Shall be in accordance with the latest revision of ANSI/AWWA C504 for Class 150 B service and the following:

- 1) Valve Body: Shall be constructed of cast iron ASTM A-126 Class B and conform to AWWA C504 in terms of laying lengths and minimum body shell thickness. End Connections shall be mechanical joint.
  - 2) Valve Disc: Shall be made from cast iron ASTM A-126 Class B in sizes 20" and smaller. Sizes 24" and larger shall be built from ductile iron in conformance to ASTM A-536. Disc shall be furnished with Type 316 stainless steel seating edge to mate with the rubber seat on the body.
  - 3) Valve Seat: Shall be Buna-N rubber located on the valve body. In sizes 20" and smaller, valves shall have bonded seats that meet test procedures outlined in ASTM D 429 Method B. Sizes 24" and larger shall be retained in the valve body by mechanical means without use of metal retainers or other devices located in the flow stream.
  - 4) Valve Shaft: Shall be Type 304 stainless steel conforming to ASTM A-276. Shaft seals shall be standard self-adjusting split V packing. Shaft seals shall be of a design allowing replacement without removing the valve shaft.
  - 5) Valve Actuators shall be fully grease packed and have stops in the open/close position. The actuator shall have a mechanical stop which will withstand and input torque of 450 ft. lbs. against the stop. The traveling nut shall engage alignment grooves and the housing. The actuators shall have a built in packing leak bypass to eliminate possible packing leakage into the actuator housing. Actuators shall be suitable for direct underground burial and shall be furnished with a standard 2-inch square nut.
  - 6) Manufacturer: Pratt Groundhog, Kennedy Style 4500 or approved equal.
- D. Valve Boxes: Cast iron, screw type, three piece; Tyler Union 6860 Series. Cast iron lids shall be marked "Water".
5. Hydrants: Shall be in accordance with ANSI/AWWA C502 Dry-Barrel Fire Hydrants and the following:
- A. Type and Size: Breakaway traffic flange; 6 inch main valve seat.
  - B. Connections: Two 2-½ inch hose connections and one 4-inch pumper with Storz connection. 2-½ inch hose connections shall be National Standard threads, 4 threads per inch.
  - C. Direction of Opening: Left.
  - D. Operating Nut: 1-1/2 inch pentagon.
  - E. Manufacturer: Waterous Pacer, EJIW 5BR 250 with breakaway flange.
6. Joint Restraint: Shall be provided as outlined in paragraph c.1.G of this Special Provision utilizing the following materials. Both retainer glands and locking gaskets shall be utilized for thrust restraint as required by this Special Provision.

- A. Retainer Glands: Retainer glands, EBAA Iron "Megalug Series" or equal, shall be installed on push-on joint type water main and fittings at locations and intervals required for thrust restraint. Push-on joint restraint for C909 PVC pipe shall be EBBA Iron Series 1900 with Mega-Bond coating system, or equal. Mechanical joint fittings shall be restrained with EBAA Iron "Megalug Series" or Uni-Flange Block Buster 1400 retainers, appropriate to pipe material. Megalug or Uni-Flange Block Buster 1400 retainers may also be used to restrain joints for unanticipated deflection points, or where connections require a mechanical joint.
  - B. Locking Gaskets for Ductile Iron Pipe: Shall be in accordance with paragraph b.2.F of this Special Provision.
7. Service Lead Pipe, Corporation Stop, Curb Valve, Curb Box
- A. Service Lead Pipe: ASTM B88 type K annealed seamless copper water tube. Fittings shall be compression type.
  - C. Corporation Stop: Mueller H-15008 or Ford FB1000-4-Q, NL for 1-inch; Mueller H-15013 or Ford FB1000-6-Q, NL for 1-1/2-inch.
  - D. Curb Stop: Minneapolis pattern with compression connections for Type K copper, without drain and without check  
  
Mueller H-15155 or Ford B44-444-M-Q NL for 1-inch  
Mueller H-10287 or Ford B44-666-M-Q NL for 1-1/2-inch
  - E. Curb Box: For 1-inch curb stop – Mueller H-10388. All curb boxes shall be Minneapolis pattern, 5'-6" box length extended, cast iron with brass plug and lid marked "WATER", without stationary rod.
  - F. Service Lead Unions and Reducers: Ford C44-44-Q, NL and C44-34-Q, NL respectively, or equal.
  - G. Service Saddle: Ford 202BSD, double strap for ductile iron and PVC pipe, or equal.
8. Tapping Sleeve: Shall meet the requirements of ANSI/AWWA C223-07. Tapping sleeves shall be stainless steel with ductile iron flange outlet, Romac Industries, Inc. SST, Smith Blair 665, Dresser Style 630 approved equal.

**c. Methods of Construction**

- 1. Water System Installation, including water mains and their appurtenances, shall be in accordance with ANSI/AWWA C600 Installation of Ductile-Iron Water Mains and their Appurtenances.
  - A. Location, Grade and Alignment: Water main shall be constructed to maintain at least a ten (10) foot horizontal separation from any sewer. A minimum depth of cover of five (5) feet shall be provided, unless otherwise required and/or approved by the Township Engineer. Water main shall also be constructed to



maintain a minimum vertical clearance of 18 inches between the water main and any sewer.

- B. Laying Pipe: Pipe shall be laid with the bell ends facing the direction of laying, unless otherwise directed or allowed by the Township Engineer.
- C. Wet Trench Laying: When the trench contains water, open ends of the pipe shall be closed by a watertight plug. This provision shall apply during the noon hour as well as overnight.
- D. Pipe Bedding and Backfill: Shall be in accordance with the Michigan Department of Transportation Standard Plan R-83 (Series), Utility Trenches and the respective pipe manufacturer.
- E. Pipe Encasement: Ductile iron pipe and all fittings shall be encased in a polyethylene encasement. Closures and damaged areas shall be sealed with 1-1/2" wide, 12 mil polyethylene adhesive tape.
- F. Electrical Continuity: Shall be provided for ductile iron pipe.
- G. Joint Restraint: Where water pressure exerts a disjoining force, at all pipe deflections over 20 degrees, and all tee, hydrants and dead ends, joints shall be restrained. Details of the proposed joint restraint, showing the type shall be submitted to The Township Engineer for approval. All pipe and fitting restrained joints shall be rated for a minimum of 250 psi. The restraint shall be applied to joints in each direction from the deflection an adequate distance to resist the axial thrust of the test pressure as shown in the Pipe Restraint Schedule Table below.

TABLE 1: PIPE RESTRAINT SCHEDULE TABLE  
GROUND BURIED PRESSURE PIPE

Pipe Diameter	Length (Ft) of Pipe Restraint for Each Direction from Fitting						
	Tee, 90° Bend	45° Bend	22-1/2° Bend	11-1/4° Bend	Dead End	Reducer (One Size Reduction)	Reducer (Two Size Reduction)
4"	14	6	3	--	39	--	--
6"	40	15	10	--	50	--	--
8"	40	20	15	--	65	--	--
12"	60	25	25	--	95	--	--
16"	75	35	30	--	123	--	--

- H. Tracer Wire and Tracer Wire Access Boxes: Install tracer wire in water main trench; affix tracer wire to pipe with zip ties or other approved method. At corporation locations, install tracer wire connection from copper service pipe to mainline pipe tracer wire with appropriate wire connectors; coat or wrap exposed wire connections as recommended by tracer wire manufacturer. Install tracer wire boxes adjacent to fire hydrant locations as directed by the Engineer.

2. Valve and Valve Box Installation: Shall be in accordance with ANSI/AWWA C111/A21.11 Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings, ANSI/AWWA C509 Resilient-Seated Gate Valves for Water Supply Service, and ANSI/AWWA C504 Rubber Seated Butterfly Valves.
3. Valves Larger Than 12-Inch Diameter: Shall be installed in a precast concrete valve manhole; refer to the Standard Detail for Water Valve Manhole.
4. Hydrant Installation
  - A. Hydrant: Shall be in accordance with ANSI/AWWA C502 Dry-Barrel Fire Hydrants and the Standard Details in these Municipal utility Standards.
  - B. Depth of Cover: Hydrant leads shall be installed to provide a minimum depth of cover of 5 feet for ductile iron pipe including crossings through ditch sections.
  - C. Hydrant Drain Ports: Hydrant plugs shall be removed unless otherwise indicated by the Township Engineer.
  - D. Hydrant Thrust Restraint: Shall be restrained from the main line to the hydrant in accordance with paragraph c.1.G. of this Special Provision.
  - E. Hydrant Guard Posts: A hydrant guard post shall consist of a painted, cement-concrete filled, 6 inch diameter by 6 foot length of standard weight steel pipe. Guard posts shall be placed at all hydrants located within areas subject to high volume vehicular traffic and any other area determined as necessary by the Township Engineer. Hydrant guard posts shall be embedded in concrete and positioned as shown on the approved construction plans. The guard posts shall be painted "Safety Yellow".
5. Service Lead Installation
  - A. General: Open cutting of existing hard surfaced pavement will not be allowed. Service leads may be bored, drilled or jacked; jetting of water or air will not be allowed. Under normal conditions, casings will not be required except where probable damage to the roadbed or the service lead exists. Service leads shall be installed to provide a depth of cover of 5 feet.
  - B. Installation Without Casing: In stable soils, the diameter of the auger head shall not exceed the diameter of the service lead by more than one inch. Service lead pipe shall be pushed or pulled through after the hole has been augured. Pipe ends shall be examined after installation for damage. If damaged, the service pipe shall be replaced.
  - C. Installation With Casing: In unstable soils, as determined by the Township Engineer, the combination of boring and jacking simultaneously shall be utilized providing the cutting edge of the auger does not advance ahead of the casing. Casing diameter shall not exceed the diameter of the service lead by more than two (2) inches. Boring installation: Shall be in accordance with the requirements outlined in the Special Provision for Steel Casing Pipe, Bored and Jacked In Place.

- D. Connection to Existing Services: Connections to existing water services with like material shall be made with standard couplings; connections of dissimilar materials shall be made with appropriate couplings complete with Nylon dielectric bushings.

#### 6. Hydrostatic Testing Requirements

- A. General: Upon completion of installation of the water main and appurtenances, the Contractor shall furnish all apparatus, materials, labor and water required to perform the pressure tests in accordance with ANSI/AWWA C600 Installation of Ductile-Iron Water Mains and Their Appurtenances.
- B. Pre-Test Procedures: Contractor shall open all valves, including hydrant auxiliary valves, and completely fill the line with water to remove all air from the pipe, valves or hydrants. If necessary, the Contractor shall install additional corporation stops at high points to allow the air to be expelled.
- C. Preliminary Test: A preliminary pressure test shall be accomplished by the Contractor. Any leaks encountered shall be corrected and the test shall be rerun until results are satisfactory.
- D. Final Pressure and Leakage Test: Shall be conducted in the presence of the Township Engineer, who shall receive 24 hours notice prior to testing. If it is necessary for the Township Engineer to observe more than one test on any section of mainline, the Contractor shall be liable for the additional cost involved for observation of subsequent tests.
- E. Leak Repair: The Contractor shall provide all labor and materials, etc. as required to repair leaks, or otherwise required to meet these tests. Any leakage over the allowable design calculations in AWWA C600 shall be repaired. Water damage resulting from flushing or testing procedures shall be the responsibility of the Contractor.

#### 7. Disinfection Requirements

- A. General: Shall be in accordance with ANSI/AWWA C651 Disinfecting Water Mains and the following.
- B. Preliminary Flushing: After the pressure test and before disinfection, the Contractor shall flush the new pipe until the water runs clear. Each valved section of the newly laid pipe shall be flushed separately with potable water from the Township water supply.
- C. Disinfection: The Contractor shall disinfect the new mains by flushing in approximate 1,000 foot intervals at a minimum velocity of 2.5 feet per second until the water runs clear. Samples shall be taken from corporation stops only at locations approved by the Township. If mains dead end at hydrants, with no adjacent valve the Contractor shall install an additional corporation stop for sampling.
- D. Chlorination Method: Shall be the Continuous Feed method as outlined in AWWA C651 Disinfecting Water Mains. The form of chlorine to be used shall be sodium hypochlorite conforming to ANSI/AWWA B300 in liquid form.

- E. Bacteriological Water Samples: Shall be collected by the Township, in accordance with ANSI/AWWA C651 Disinfecting Water Mains. Samples shall be taken from corporation stops installed by the Contractor as directed by the Township Utility Department staff. Sample points shall be spaced a maximum of 1,200 feet apart along the route of the water main. One set of samples shall be taken from each water main end point location. Two (2) successive safe tests taken 24 hours apart are required. Analysis will be completed by the Lansing Board of Water and Light Laboratory or other testing facility selected by the Township Utilities Department.
- F. Failing Tests: In the event of an unsafe test, the test shall be repeated as described above. The Contractor shall be responsible for the tests and shall be liable for any costs when more than one treatment or set of tests is necessary.
- E. Corporation stops installed by the Contractor for sampling purposes shall be removed and replaced with bronze plugs. The Township will inspect all plugs under normal main pressure prior to backfilling.

SPECIAL PROVISION  
FOR  
**SANITARY SEWER**

DCT

1 of 6

6/2012

**a. Description.** The work of **Sanitary Sewer** shall consist of furnishing all labor, equipment, and materials required for the installation of all sanitary sewers and appurtenances as shown on the plans and specified herein, including testing.

**b. Materials.**

1. Detailed material lists and specifications for all sanitary sewer system materials shall be submitted to the Engineer for review. All sanitary sewer system materials shall be new and shall meet the requirements of the standard specifications, and the following.
2. Sanitary Sewer: Sanitary sewer shall be Polyvinyl Chloride (PVC) or Ductile-Iron (D.I.) in accordance with the following.

**A. Pipe: Mainline Sewer and Service Laterals to Property Line**

- 1) Polyvinyl Chloride (PVC): Shall be in accordance with ASTM D3034 and F679.
  - a. Minimum pipe wall thickness shall be SDR 35 or PS 46 for pipe larger than 15-inch diameter.
  - b. All pipe shall have a "home" mark.
  - c. Pipe joints shall be of the elastomeric gasket push-on type conforming to ASTM D3212.
- 2) Ductile-Iron (D.I.): Shall be in accordance with ANSI A21.51.
  - a. Pipe shall be Class 52.
  - b. All pipe shall have a "home" mark.
  - c. Pipe joints shall be mechanical joints or push-on joints meeting ANSI A21.11.
  - d. Pipe lining shall meet the following requirements.
    1. Ceramic Epoxy: Shall be Protecto 401 Ceramic Epoxy Lining, 40 mil thickness, factory applied.
    2. Polyethylene: Shall be Polybond Lining, 40 mil thickness, ANSI/ASTM D1248, or equal.
  - e. Exterior Coating: Shall be bituminous, 1 mil thick.
  - f. Polyethylene Encasement: Shall meet ANSI/AWWA C105/ A21.5.

**B. Pipe: Sewer Laterals from Property Line to Structure**

- 1) Polyvinyl Chloride (PVC): Shall meet the requirements of ASTM D1785 or D3034. Pipe wall thickness shall be SDR 35 or Schedule 40 for laterals 8 inches in diameter or smaller.

- C. Vitrified Clay Pipe (VCP) (For Repairs to Existing Vitrified Clay Pipe Only): Shall be extra strength vitrified clay pipe meeting ASTM C-700, except as upgraded by the National Clay Pipe Institute specification NCPI-ER-4 for extra strength pipe. Pipe bells shall be clay, fiberglass (FIBURLOC) as manufactured by UNICON, PVC meeting ASTM D-1784, Class 12454-B (NO BELL) as manufactured by Clow Corporation, or approved equal. All joint shall meet the requirements of ASTM C-425.
- D. Fittings: All pipe connections and pipe type, size, and/or direction changes shall be made with standard manufactured fittings in accordance with the following.
  - 1) Polyvinyl Chloride (PVC): Service lateral connections shall be made with standard wye fittings; tees or tee-wyes shall not be used. Wye fittings shall be Multi-Planed Reinforced (MPR) fittings as manufactured by Vassallo, or approved equal. Riser adapter fittings used on deep sewer vertical risers shall be as manufactured by Vassallo, or approved equal. Saddles may be used to live tap existing sanitary sewers, as approved by the Township Engineer.
  - 2) Ductile-Iron Fittings: Shall be standard manufactured fittings of ductile iron or cast iron meeting the requirements of ANSI A 21.10 for mechanical joints and push-on joints. Fittings shall be provided with Polybond Lined, 40 mil thickness, ASTM D1248 or Protecto 401 interior coatings and shall have the standard exterior bituminous coating. Service lateral fittings shall be wyes with appropriate fitting or a tee rolled as required. Plugs shall be iron or plastic suitable for air testing.
- E. Connections of Dissimilar Pipe Materials: Shall be made utilizing one of the following:
  - 1) Standard Adapters: Shall be a manufacturer's standard adapter with joints conforming to the above specifications.
  - 2) Couplings: Shall be an elastomeric coupling complete with 300 series stainless steel tension bands conforming to ASTM C425. Couplings shall be Fernco Flexible Couplings or equal.
- F. Changes in Pipe Sizes (Sanitary Sewer Laterals): Shall be made using standard smooth flow increasers or reducers.
- G. Lubricants: All lubricants for the making of pipe joints shall strictly conform to the recommendations of the pipe manufacturer.
- 3. Precast Concrete Manholes: Shall conform to the Special Provision for Concrete Utility Manholes
- 4. Polymer Concrete Sanitary Manholes: Shall confirm to Special Provision for Polymer Concrete Sanitary Manholes.
- 5. Chemical Grout: For sealing minor joint leaks shall be an EPA approved type.

6. Marking: All pipe, fittings and appurtenant items furnished to the job site shall be marked in accordance with the applicable specification. Any unmarked materials are subject to rejection by the Township Engineer.
7. Pipe Bedding and Backfill Materials: Shall be in accordance with the Michigan Department of Transportation Standard Plan R-83 (Series) Utility Trenches, for ductile iron pipe. MDOT 6A crushed aggregate bedding shall be used for PVC pipe bedding.

**c. Methods of Construction**

1. Sanitary Sewer System Installation, including sanitary sewers and their appurtenances, shall be in accordance with the following.
  - A. General: Handling, storage, installation, and the making of joints shall strictly follow the manufacturer's recommendations. Plastic and rubber materials affected by ultraviolet rays including all PVC products shall be protected from direct sunlight. Material handling during cold weather shall take into account increased brittleness of plastic materials. Pipe which is warped or bowed due to temperature variations such that the deviation from straightness is greater than one inch shall not be installed.
  - B. Grade and Alignment: All sewer shall be laid utilizing an "in-line" laser for vertical and horizontal control. Vertical and horizontal alignment of the invert shall, at any point, be within plus or minus 0.04 feet (1/2 inch) of plan elevation and line.
  - C. Cutting of Pipe: Full lengths of pipe shall be used whenever feasible. Cutting of pipe where required shall be done only using methods as recommended by the manufacturer, utilizing tools and equipment as required to provide a neat, perpendicular cut without damage to the pipe or coatings. All burrs shall be removed. Spigot ends of cut pipe shall be beveled similar to factory beveling. If field cutting or coring of pipes exposes any bare metal surface, the surface shall be covered with an epoxy coating.
  - D. Laying of Sewer: Each pipe shall be inspected before being placed in the trench. Joint surfaces shall be free of earth or frozen matter. Pipe shall be laid with bell ends upgrade to line/grade as called for on the plans. The line/grade of each pipe as laid shall be checked by the Contractor. Pipe shall be laid from the low end of the sewer upgrade. The use of brick, lumps of clay, wood, etc., to bring the pipe to grade will not be permitted.
    - 1) Joints: Shall be made in strict accordance with the manufacturer's recommendations utilizing the recommended lubricant. Wood blocks or other approved materials shall be used to protect the pipe and fitting ends from pry bars, chains, etc. with particular care taken with plastic materials. Pipe shall be pushed closed to the "home" position and if joints do not remain tightly closed, the pipes shall be replaced.
    - 2) Final Line and Grade: After the pipe is laid, care in backfilling and other operations shall be taken so as not to disturb its line, grade, or joint. Misalignment shall be cause for rejection of the sewer.

- E. Pipe Encasement: Ductile iron pipe shall be encased in a polyethylene encasement.
  - F. Connections to Live Sewers: When connections are made with sewers carrying sewage or water, special care must be taken that no part of the work is built underwater; a flume or dam must be installed and pumping maintained as if necessary and the new work kept dry until completed and any concrete or grout has set.
  - G. Connections to Existing Sanitary Manholes: Shall be made by coring the existing manhole structure and installation of a flexible boot connection, Kor-N-Seal or equal.
2. Manhole Installation: Shall be in accordance with the Special Provisions for Concrete Utility Manholes and Polymer Concrete Sanitary Manholes.
3. Service Lateral Installation:
- A. General: Shall be installed to ten (10) feet past (inside) the property line. The location of the service lateral shall be as shown, or when serving an existing building, to the location designated by the building owner. Where an existing service lead is to be connected, the Contractor shall be responsible for locating the lead.
  - B. Marking: The Contractor shall mark the end of each service lateral with a 4 x 4 wolmanized post of sufficient length to extend from the service lateral to 12 inches above grade.
  - C. Record of Locations: The Contractor shall record and submit to the Township Engineer a location sketch of the service lateral fitting measured upstream from the nearest manhole and shall record the location of the terminus of the service lateral with a minimum of two witness measurements to permanent physical features. Any services not readily located within one year after date of final payment due to inaccurate record measurements shall be field located by the Contractor at no expense to the Township.
  - D. Risers: Where sanitary sewers are constructed deeper than 15 feet, service risers shall be constructed as shown in the standard detail. PVC wyes shall be encased in MDOT 6A crushed aggregate. Six (6) inch diameter service laterals shall be constructed at a minimum slope of 1.00%. Lateral fittings shall be installed with the branch connection tilted 45° up.
  - E. Service Lateral Inspection: All service lateral pipes shall be left with at least the top of the pipe exposed until inspected by the Township Engineer or his representative and authorization for backfill given.
4. Removal of Unsuitable Material: Whenever any pipe section, fitting or appurtenance is found to be unsuitable for installation due to specification non-conformance, poor workmanship, damage, or any other reason, it shall be removed from the construction site during that working day by the Contractor. Any material not so removed shall be painted or otherwise marked by the Township Engineer to prevent its subsequent use.



## 5. Sanitary Sewer Testing:

A. General: Upon completion of installation of the sanitary sewer and appurtenances, the Contractor shall furnish all apparatus, materials, and labor required to perform the tests in accordance with the following.

- 1) Pre-test Procedures: Contractor shall clean new sanitary sewers to be tested and verify that all wyes, tees and laterals are suitably capped and blocked to withstand the air test pressures.
- 2) Preliminary Tests: Prior to final testing, the pneumatic plugs to be used in the testing shall be tested to ensure their integrity. On one length of sewer pipe, the plugs shall be inserted in each end of the length of pipe, inflated to seal the ends of the pipe. The plugs shall hold against a pressure of 15 psi without bracing or loss of pressure.
- 3) Final Tests: Shall be conducted in the presence of the Township Engineer, who shall receive 24 hours notice prior to testing. If it is necessary for the Township Engineer to observe more than one test on any section of sanitary sewer, the Contractor shall be liable for the additional cost involved for observation of subsequent tests.

B. Air Testing: Shall be the Time-Pressure Drop Method in accordance with the following:

- 1) Polyvinyl Chloride (PVC): ASTM F1417
- 2) Ductile Iron (D.I.): ASTM F1417

C. PVC Deflection Testing: The Contractor shall provide all equipment, materials, labor and do all work necessary to conduct a pipe deflection test on all PVC sewer pipe installed. The maximum limits of out-of-round deflection shall be 5% of the base inside diameter based upon the following table:

<u>Nominal Pipe Size</u>	<u>Base Inside Diameter</u>	<u>Diameter of 5% Deflection Probe</u>
8"	7.76"	7.37"
10"	9.71"	9.22"
12"	11.56"	10.98"
15"	14.14"	13.43"

If the average inside diameter of the pipe differs from that in the table above, the diameter of the 5% deflection probe shall be adjusted accordingly.

All pipe installed shall be measured for out-of-round deflection no sooner than 30 days after completion of the backfill. The Contractor shall furnish the required deflection mandrels which shall be manufactured in accordance with A.S.T.M. specifications.

- D. CCTV Inspection: All new sanitary sewers shall be visually inspected in accordance with the Special Provision for Sewer Line Cleaning and Televising (PACP) after all services leads are constructed, manhole flow channels are poured, manhole castings are adjusted to final grade, and all other work which connects to the sewer is completed. The inspection shall verify that the sewer is clear of all debris and that no damage has occurred to the sewer. All debris shall be removed by the Contractor and the reach shall be inspected again at no additional cost to the Township.
  - E. Correction of Defective Work: Whenever any of the above test or inspections indicate defective material or installation, the Contractor shall repair and retest the section to the satisfaction of the Township Engineer at no cost to the Township. The use of chemical grouts shall be limited to the repair of minor joint leaks and shall not be used without the specific written approval of the Township Engineer. Any pipe or fitting having structural damage shall be removed and replaced. Any PVC sewer with deflection in excess of the 5.0% limitation shall be re-excavated, inspected for structural damage, and then rebbed and backfilled and retested.
  - F. Project Acceptance
    - 1) Acceptance of sanitary sewer system is contingent upon but not limited to satisfactory completion of all work including materials tests, CCTV inspections, service lead records, and Record Drawings. A review of the grade and alignment will be completed by the Township Engineer based on the Record Drawings. Sewer grades and the drops between manhole inlets and outlets will be checked against the design grades and elevations.
    - 2) A tolerance for measurement of 0.04 vertical feet will be applied for each stretch of sewer between manholes. Grades that are outside of a ten percent difference are not acceptable and the sewer shall be replaced
    - 3) Manholes with back fall (opposite to the flow direction) are not acceptable and shall be replaced.
6. Sanitary Sewer Spot Repairs:
- A. General: Shall be as shown on the plans and/or specified herein. Sawcutting the existing pipe at the removal limits, as well as removal of the existing pipe shall be included in the spot repair.
  - B. Bedding for Spot Repairs: Shall be MDOT 6A crushed stone from 6 inches below the pipe invert to 12 inches above the top of the pipe.
  - C. Connection of the repair to the existing sanitary sewer shall be constructed such that the joint is not offset by more than 1 inch in the horizontal and vertical direction and the joint gap is less than 1 inch. Care shall be used in placing the bedding and backfill to prevent displacement of the pipe outside of the noted tolerances.

SPECIAL PROVISION  
FOR  
SEWER LINE CLEANING AND TELEVISION - (PACP)©

DCT

1 of 4

5/2012

**a. Description.** This work shall include cleaning, dewatering or diverting of flow in sewers to the degree necessary, and inspection by closed circuit television as shown on the contract drawings or as directed by the Engineer. This work shall be in accordance with Section 402.03.K of the MDOT 2012 Standard Specifications for Construction except as herein modified.

**b. Construction**

1. Sewer Cleaning: Sewer cleaning shall include all work required to clean sewers for inspection by closed circuit television. Work included in cleaning of sewers shall include providing necessary equipment and personnel for dislodging material from the sewer pipe, removal of the debris from the system and the transport and disposal of debris removed. A disposal site will not be provided by the Township.

The intent of the sewer line cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% of the original carrying capacity or as required for proper seating of internal pipe joint sealing packers. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Contractor will not be required to clean those specific sewer sections. If in the course of normal cleaning operations, damage does result from preexisting and unforeseen conditions such as broken pipe, the Contractor will not be held responsible.

**A. Cleaning Equipment**

- 1) Hydraulically Propelled Equipment: The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment which cannot be collapsed is used, special precautions to prevent flooding of the sewers and public or private property shall be taken.
- 2) High-Velocity Jet (Hydrocleaning) Equipment: All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

- 3) Mechanically Powered Equipment: Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Where bucket machines and buckets are to be used, caution should be taken that a proper sized flexible cable be used so that cable breakage will not occur. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 1,000 feet of rod. The rod shall be specifically heat treated steel. To insure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve.
  - 4) Large Diameter Cleaning: For cleaning large diameter sewer (sewer ranging 27" to 108" in diameter), storm or combination pipes, consideration should be given to a combination hydraulic high volume water and solids separation system. The flow from the sewer will provide water for the pump operation so no potable water is necessary and treatment costs are not a factor. Water volume of up to 250 GPM at 2000 PSI+ will move solids to the downstream manhole in high flow conditions. The separation system will dewater solids to 95% (passing a paint filter test) and transfer them to a dump truck for transport to a sewage treatment plant or approved landfill. Sewer water will be filtered to a point where it can be used in the pump for continuous cleaning. No by-passing of sewer flows will be necessary. The unit shall be capable of 24 hour operation and the unit shall not leave the manhole until a section is fully cleaned. Equipment must be able to clean the length with vehicular access to one manhole only.
- B. Cleaning Precautions: During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line, are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. All damages to the private property, which result from backflushing sewer laterals, shall be the sole responsibility of the Contractor. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. Contractor shall obtain water from the Township Utility Department; the Contractor shall be responsible for coordinating his water requirements with the Township staff. Under no circumstances will the Contractor be allowed to obtain water from or operate fire hydrants. No fire hydrants shall be obstructed in case of a fire in the area served by the hydrant.
- C. Sewer Cleaning Methods: The designated sewer sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of the equipment used shall be based on the conditions of lines at the time the work commences. The equipment and methods selected shall be satisfactory to the Township Engineer. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted.
- D. Removal and Disposal of Debris: All sludge, dirt, sand, rocks, grease, roots and other solid or semisolid material resulting from the cleaning operation shall be removed at the

downstream manhole of the section being cleaned. Passing material from sewer section to sewer section shall not be permitted. All material shall be removed from the site no less often than at the end of each workday. Under no circumstances will the Contractor be allowed to accumulate debris, etc., on the site of work beyond the stated time, except in totally enclosed containers and as approved by the Township. Contractor shall follow "Sanitary Sewer Cleanout Waste" disposal criteria from MDEQ. The waste management guidance requirements can be located at the end of this special provision.

- E.. Acceptance of Sewer Cleaning: Acceptance of sewer line cleaning shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the Township Engineer. If the television inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to re-clean and re-inspect the sewer line, at no cost to the Township, until the cleaning is shown to be satisfactory.

## 2. Television Inspection

- A. The television camera used for the inspection shall be one specifically designed and constructed for such inspection. The Pan/Tilt/Rotate features shall be used to inspect all service lateral connections to determine whether the lateral is active or plugged and to inspect the structural integrity of the lateral and connection to the sewer main. The Pan/Tilt/Rotate feature shall also be used where practical to provide additional information such as wide joints, holes in pipe, etc. Lighting for the camera shall be suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Township Engineer; and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.
- B. The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case will the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete and no additional inspection will be required.
- C. The camera lens shall be positioned looking along the axis of the sewer and within 10% of the vertical centerline of the pipe.
- D. When manually operated winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two manholes of the section being inspected to ensure good communications between members of the crew. In the event the camera becomes trapped in the sewer, the Contractor shall notify the Township Engineer immediately. The Contractor shall monitor adjacent and private properties to avoid flooding until the camera is freed.

- E. The importance of accurate distance measurements is emphasized. Measurement for location of defects shall be above ground by means of a meter device. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Township's Representative. All measurements shall be made from the wall of the structure per NASSCO's Pipeline Assessment Certification Program (PACP)© guidelines.

### 3. Reporting

- A. The Contractor shall provide the Township Engineer with two (2) copies of the televising video in a digital format (MPEG1 or DVD / exported PACP Microsoft Access Database), and a paper report of the televising activities. The Contractor shall provide the Township Engineer with the televising data (televising videos and paper reports) on a weekly basis until the completion of the project.
- B. Television Inspection Report: Printed location records shall be kept by the Contractor and will clearly show the location in relation to an adjacent manhole for each defect observed during inspection. Structural defects, operational and maintenance defects, construction observations, or miscellaneous feature observations shall be in accordance with NASSCO's Pipeline Assessment Certification Program (PACP)© guidelines. The report should also show the date of televising, manhole numbers, location, direction of flow, pipe diameter/size, pipe material, name of operator, report number, and the length of sewer televised.
- C. Video Recordings: The purpose of video recordings shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Video recording playback shall be at the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. The Contractor shall have all video and necessary playback equipment readily accessible for review by the Township during the project. Video recordings shall be performed in NASSCO certified PACP© software. Videos shall be formatted MPEG1. The date of televising, manhole numbers, location, direction of flow, pipe diameter/size, pipe material, name of operator, and the report number must appear transparent in the middle of the viewing screen at the start of the televising video. The manhole numbers and location must appear transparent throughout the televising and displayed in the bottom left or right quadrant without obstruction to viewing the condition of the pipe.
- D. All CCTV Inspections shall be performed by CCTV personnel who are trained and certified in the use of NASSCO's Pipeline Assessment and Certification Program (PACP)©.

SPECIAL PROVISION  
FOR  
**CONCRETE UTILITY MANHOLES**

DCT

1 of 3

5/2012

**a. Scope** – The work covered by this section of the specifications consists in furnishing all plant, labor, equipment and materials in connection with concrete utility manholes.

**b. General**

1. Requirements – All concrete utility manholes, including valve vaults, shall be installed in accordance with the Standard Details and this Special Provision.
2. Specifications by Reference – Whenever reference is made to specifications other than those contained within this document, said specifications shall apply and be binding as if fully repeated herein. If a specification publication date is not listed herein, it shall be taken to be the most recent published edition.
3. Material Lists – The Contractor shall submit detailed material lists to the Township Engineer for approval of all materials furnished under this specification.

**c. Materials**

1. Precast Sections:
  - A. Integral Base – Manholes shall consist of integral cast base and riser sections conforming to ASTM C478.
  - B. Pipe Connections – Manhole pipe connections shall be furnished with an integrally cast seal system, equal to “Press Wedge 11”, “Kor-N-Seal” or “Lock Joint Flexible Manhole Sleeve”, or equal. Pipes shall generally be flush with the interior manhole wall, but protruding no more than 2 inches. Sanitary manholes shall have integral concrete manhole bottoms. Manhole section joints shall be of the O-ring rubber joint type. All pipe openings shall be cast in the precast section or cored in the finished wall. Broken and patched connections will not be accepted.
2. Manhole Adjusting Rings – Shall be standard precast reinforced concrete rings or polyethylene (HDPE). HDPE grade rings shall be manufactured from 100% polyethylene recycled plastic as manufactured by Lad Tech Inc. or approved equal.
3. Exterior Joint Sealer – All joints between precast manhole sections shall be sealed with Cretex Wrap, Infi-Shield Seal Wrap, Wrapid Seal, or approved equal.
4. Exterior Chimney Seal – The exterior of the casting adjustment shall be sealed with Infi-Shield Unibank, Wrapid Seal, or approved equal. The seal shall extend from the precast cone section to the casting.
5. Manhole Steps – Shall be furnished.

6. Cast Iron Frames And Covers – Shall be EJIW 1040A.
  7. Mortar and Grout – The mortar and grout shall be hydrogen sulfide resistant.
  8. Flow Channel Concrete – Concrete for poured manhole flow channels shall be designed to resist hydrogen sulfide related corrosion and shall contain Type I Portland Cement (ASTM 150) supplemented with Fly Ash, Type F (ASTM C618). Limit the percentage, by weight, of Fly Ash to 25%. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement. The concrete shall have a minimum compressive strength of 3,000 psi and a maximum water-cement ratio of 0.45. Alternate mix designs shall be approved by the Township Engineer.
- d. Installation.** Utility manholes shall be constructed of precast concrete sections including risers, grade rings, and precast tops of eccentric cone, or flat slab type, as indicated below:
1. Manhole – Precast integral bases shall be set on uniform bedding of 8 inches of compacted sand or existing granular material as approved by the Township. When water is encountered in the trench, bases shall be set on a minimum of 12 inches of crushed stone that meets the grading requirements of MDOT 6A.
  2. Precast Concrete Risers – Shall be set plumb. Joints between manhole sections shall utilize rubber O-rings. Top sections shall be eccentric unless otherwise indicated on the drawings. External joint seals shall be installed on all joints.
  3. Castings – Shall be installed as specified below:
    - A. Sanitary Sewer Manholes and Valve Vaults – Castings shall be set on adjusting rings with a minimum of adjustment of 2 inches and a maximum of 12 inches. Casting and concrete rings shall be set in mortar unless O-ring and bolts are required. Bolting and O-ring details shall be shown on the shop drawing.
    - B. Casting elevations – Where castings are to be flush with permanent pavements, the contractor shall adjust the frame to the proper grade. For all new projects, the manhole castings will be set at the road base surface, with the final adjustment to be made at the time of construction of the final course of bituminous surfacing. Where castings are on flat slab tops in non-paved areas, they shall extend approximately 1 inch above finish earth grade unless shown otherwise.
    - C. Inside Finish- the inside surface of concrete adjustment rings shall be tooled to give a smooth finish coat of mortar. No additional finish is required for polyethylene grade rings.
  4. Drop Pipes – Shall be constructed at sanitary manholes wherever the difference in elevation between any inlet and outlet sewer is more than 2 vertical feet. External drop pipes shall be encased in MDOT 6A crushed aggregate and shall conform to the Standard Details of these Municipal Utility Standards.



5. Flow Channels shall be constructed in manhole bottoms with mechanically mixed concrete. Precast flow channels shall not be used unless approved by the Township Engineer. Prior to placement of concrete, a bonding compound, Sealtight INTRALOCK, Sika SIKABOND, ACRYL 60 or equal, shall be applied per manufacturers' recommendations to the manhole base. Flow channel depth shall not exceed  $\frac{1}{2}$  the pipe diameter and concrete thickness shall be a minimum of 4 inches measured from the top of the base to the bottom of the flow channel. Where the grade of sewer is continuous through the manhole, the Contractor may lay the pipe through the manhole, fill around the pipe with concrete, and carefully cut out the top of the sewer pipe.

SPECIAL PROVISION  
FOR  
**POLYMER CONCRETE SANITARY MANHOLES**

DCT

1 of 3

6/2012

**a. Description.** The work of **Polymer Concrete Sanitary Manholes** shall consist of furnishing all plant, labor, equipment, and materials required for the installation of polymer concrete sanitary manholes manufactured in accordance with ASTM D 6783 (latest edition).

1. References

- A. ASTM D 6783 Standard Specification for Polymer Concrete Pipe
- B. ASTM F 477 Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
- C. ASTM C 579 Standard Test Method for Compressive Strength of Chemical Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
- D. ASTM C 33 Standard Specification for Concrete Aggregates.

**b. Materials.**

- 1. Resin – The manufacturer shall use only polyester resin systems designed for use with this particular application.
- 2. Filler – All aggregate, sand, and quartz powder shall meet the requirements of ASTM C 33, where applicable.
- 3. Additives – Resin additives, such as curing agents, pigments, dyes, fillers, and thixotropic agents, when used, shall not be detrimental to the manhole.
- 4. Elastomeric Gaskets – Gaskets shall be suitable for the service intended. All gaskets shall meet the requirement of ASTM F 477.
- 5. Manufacturing and Product Construction
  - A. Manholes – Manhole components shall be manufactured by the vibratory vertical casting process resulting in a dense, non-porous, corrosion-resistant, homogenous, composite structure.
  - B. Joints – The manhole components shall be connected with a compatible epoxy bonding agent or an elastomeric sealing gasket as the sole means to maintain joint water-tightness. Joints at pipe tie-ins may use flexible elastomeric couplings, fiberglass overlay, or a compatible epoxy material for bonding manhole components directly to the adjoining pipe. Epoxy bonding shall require a flexible pipe joint within one pipe diameter from the manhole's external wall. Epoxy bonding material shall be approved by the manhole manufacturer.

- C. Exterior Joint Sealer – All field joints between manhole sections shall be sealed with Cretex Wrap, Infi-Shield Seal Wrap, Wrapid Seal, or approved equal.
  - D. Exterior Chimney Seal – The exterior of the casting adjustment shall be sealed with Infi-Shield Uniband, Wrapid Seal, or approved equal. The seal shall extend from the precast cone section to the casting.
  - E. Fittings – Cones, reducer slabs, base slabs, and adjusting rings shall be of the same material as adjoining riser sections. Fittings shall be manufactured elastomeric gaskets, epoxy bonding, or fiberglass overlay.
  - F. Acceptable Manufacturers – U.S. Composite Pipe, Inc. or approved equal.
6. Design – Manholes shall be designed to withstand all live loads and dead loads as described in project plans and specifications. Dead loads shall include overburden load, soil side pressure, and hydrostatic loading conditions. Manholes shall also be designed to resist buoyancy for the project conditions.
7. Testing
- A. Pipes – Pipe shall be manufactured in accordance with ASTM D 6783.
  - B. Joints – Joints shall meet the requirements of ASTM D 4161.
  - C. Three-Edge Bearing Strength – Pipe shall be designed to meet D-load requirements of external soil and hydrostatic loads. Design strength shall be tested in accordance with the three-edge bearing test method of ASTM D 6783.
  - D. Compressive Strength – Pipe shall have a minimum unconfined compressive strength of 13,000 psi when measured in accordance with ASTM C 579.
  - E. Manhole Leakage – Manhole shall be tested in accordance with ASTM C 1244 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.
8. Packaging, Handling, and Shipping – Packaging, handling, and shipping shall be performed in accordance with the manufacturer's instructions.

**c. Installation.**

- 1. Installation – The installation of manholes shall be in accordance with the project plans and specifications and the manufacturer's recommended practices.
- 2. Pipe Handling – Textile slings, union anchor lifting devices or other suitable materials and/or a forklift are recommended.
- 3. Castings – Manhole castings shall be in accordance with the project plans.

#### 4. Jointing

- A. Sealing surfaces and joint components shall be inspected for damage and cleaned of all debris.
- B. Apply joint lubricant to elastomeric seals. Use only lubricants approved by the pipe manufacturer.
- C. Use suitable equipment handle and set manholes.
- D. Placement and compaction of surrounding backfill material shall be applied so as to provide sufficient and equal side pressure on the manhole.

SPECIAL PROVISIONS  
FOR  
**SEWAGE FORCE MAINS**

DCT

1 of 6

6/2012

**a. Description.** The work of **Sewage Force Mains** consists of furnishing all plant, labor, equipment, and materials in connection with installation of sewage force mains and appurtenant work.

1. General. All items herein specified shall be adjusted to be compatible with the standard units used by the Township in its present system. The items must be of a quality level specified herein, and may be modified as called for herein or on the plans.
2. References
  - A. ASTM A 126 Standard Specification for Gray Iron Castings for Vaults, Flanges, and Pipe Fittings.
  - B. ASTM A 743 Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application.
  - C. ASTM D16 Standard Terminology for Paint, Related Coatings, Materials, and Applications.
  - D. ASTM D1248 Standard Specification for Polyethylene Plastics, Extrusion Materials for Wire and Cable.
  - E. ASTM D2657 Standard Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings.
  - F. ASTM D3350 Standard Specification for Polyethylene Plastics Pipe and Fittings Material.
  - G. ANSI/AWWA C110/A21.51 Ductile Iron Pipe Centrifugally Cast, for Water.
  - H. ANSI/AWWA C111/A21.11 Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.
  - I. ANSI/AWWA C110/A21.10 Ductile Iron and Gray Iron Fittings for Water Main.
3. Material Approvals - Submit material details and specifications to the Township Engineer for approval of all materials furnished under this specification. Include the type and class of pipe, type of joint, and type of bedding. Include manufacturer's bulletins and records of performance.

**b. Materials.**

1. Pipes And Joints - Must be of the type as listed herein meeting the specifications noted. Unless specifically shown on the plans to be a specific material, the Contractor may

elect to utilize any of the following materials subject to specifications and size limitations herein specified. Unless specifically approved by the Township Engineer, a single material must be used for the total of each size main in the contract.

- A. 3 inch Diameter and Smaller - HDPE pipe.
- B. 4 Inch Diameter and Larger - HDPE or ductile iron pipe.
- C. Bedding - Conform to MDOT Standard Plan R-83(Series), Utility Trenches.
- D. Pipe - All pipe delivered to the job site must bear the marks required by the AWWA specification.
  - (1) High Density Polyethylene (HDPE) Pipe and Fittings - Manufacture from a high density, high molecular weight polyethylene base resin conforming to ASTM D3550 Type III, Class C, Category 5, Grade P34.
    - (a) Minimum Cell Classification Values - As referenced to ASTM D-3350, 345464C with a minimum pipe wall thickness of SDR 11.0, Ductile Iron Pipe (DIPS), rated at not less than 150 psi.
    - (b) Joints – Made by thermal butt-fusion in accordance with ASTM D-2657.
    - (c) Joint and Equipment Testing - Prior to the installation of the pipe, submit a specimen of a butt-fusion pipe joint, made with the joining equipment to be used on the project, to an independent testing laboratory selected by the Engineer and tested in accordance with ASTM D-638.
  - (2) Ductile Iron (D.I.) – Conform to ANSI/AWWA C151/A21.51 unless otherwise noted on the plans, pipe wall thickness must be a minimum of Class 52. Pipe shall have the standard exterior bituminous coating and interior lining, Protecto 401 or equal, subject to approval of the Township Engineer.
    - (a) Flanged Joints - Conform to ASA Class 125.
    - (b) Mechanical Joints and Push-On Joints - Conform to ANSI/AWWA C111/A21.11. Bolts and nuts must be of high strength corrosion resistant alloy with hex head nuts.
    - (c) Fittings and Specials - Conform to ANSI/AWWA C110/A21.10, and may be either ductile or cast iron. Pipe must be either Polybond Lined, 40 mil thickness, ASTM D1248; or Polythane lined, 40 mil thickness ASTM D16 or equal.

2. Valves - Resilient Seated Gate Valves: Shall be in accordance with ANSI/AWWA C509 Resilient-Seated Gate Valves for Water Supply Service and the following:
  - A. Body Construction: ASTM A126 Class B, cast iron, mechanical joint end connection.
  - B. Operator: 2-inch square nut; open left.
  - C. Manufacturer: American Flow Control Series 2500 or approved equal.
3. Valve Boxes - Cast iron, screw type, three piece, consisting of the base, extension, top section and blank cover. The base must be 5 ¼ inch and have a range of extension of 51-82 inches.
4. Air Release/Vacuum Valves: Shall operate under pressure and open to vent entrapped air and gases from the sewage force main. After entrapped air and gases are vented, the valve must close to prevent clogging of the valve mechanism. The body and cover must be stainless steel or plastic with all internal parts of stainless steel or other acceptable material to prevent corrosion. The valve must be complete with accessories necessary for installation including an inlet shut off valve, 1 inch clean out valve, and a 1/2 inch shut off valve for back flushing with quick disconnect couplings and back flushing hose. The inlet must be 2 inches unless otherwise noted on the plans. Valves must be rated for not less than 150 psi working pressure. Valves shall be A.R.I. USA Inc. or approved equal.
5. Air Release-Vacuum Valve Manholes: Shall conform to the Special Provisions for Concrete Utility Manholes and the Standard Detail Force Main Air Release Manhole of these Municipal Utility Standards.
6. Retainer Glands: Restrain mechanical joint pipe with EBAA Iron "Mega-Lug Series" restrainers. Mega-Lugs or Uni-flange Block Buster 1400 restrainers may also be used to restrain joints for unanticipated deflection points, or where connections require a mechanical joint. No other manufacturers or types of mechanical joint-retaining glands will be accepted. Restrain push-on joint pipe with American Lok-Ring, Flexing or Fast-Grip Gaskets, U.S. Pipe TR Flex, Field Lok Gasket, or equal.

**c. Construction.**

1. Open Cut Trench Construction -
  - A. Grade and Alignment – Install all force mains to provide an overall cover of 5 feet, unless otherwise indicated on the drawings. Special care must be taken to avoid any potential for the creation of air pockets within the force main.
  - B. Laying of Mains – Use proper and suitable tools and appliances for the safe and careful handling, conveying, and laying of the pipe. Take care to prevent the coating of pipe from being damaged. Dropping material directly from a truck or platform will not be permitted. Examine all pipes and castings and test for defects. Remove any defective materials from the site.

- C. Cleaning Pipe and Fittings – Remove all lumps, blisters, and excess coal tar, or other material from the bell and spigot end of each pipe and fitting. The outside of the spigot and the inside of the bell must be brushed and wiped clean, dry, and free from oil or grease prior to laying. Brush the inside of the pipe in order to remove all dirt and debris. Repair any damage to exterior pipe coating with an approved coating before the pipe is laid.
- D. Laying Pipe – Lay pipe with the bell ends facing the direction of laying, unless otherwise directed by the Engineer. Under no circumstances can pipe be dropped directly into the trench. Take precautions to prevent foreign material from entering the pipe while it is being placed. After placing a length of pipe in the trench, center the spigot end in the bell and force the pipe home to correct line and grade. At all times, cover the open ends of the pipe to prevent foreign matter from entering. If cuts of full lengths of pipe are required, the cut end must be trimmed, beveled or otherwise prepared for jointing as recommended by the pipe manufacturer. Only lubricants recommended by the pipe manufacturer can be used. After each joint is set brass wedges will be inserted per Engineer's recommendations.
- E. Wet Trench Laying - Conform to current OSHA/MIOSHA standards. When the trench contains water, close the open ends of pipe by a watertight plug. This provision applies during the noon hour as well as overnight. If water is in the trench, the seal must remain in place until the trench is pumped completely dry.
- F. Pipe Bedding and Backfill - In accordance with MDOT Standard Plan R-83(Series), Utility Trenches. Encase ductile iron pipe bedded in an area of aggressive soil such as peat in a polyethylene encasement.
- G. Pipe Deflection - Where curved lines, laid without fittings, are shown on the plans, or are necessary to avoid obstructions, the pipe may be deflected horizontally or vertically at each joint within the published recommended limits recommended by the pipe manufacturer. Deflections in excess of the allowable deflection must be made by using standard fittings.
- H. Joint Restraint: Where water to air pressure exerts a disjoining force, at all pipe deflections over 11-1/4 degrees, and all tees and dead ends, joints must be restrained, tied or harnessed in a manner approved by the Engineer. Apply the restraint to joints in each direction from the deflection an adequate distance to resist the axial thrust of the test pressure as shown in Table 1: Pipe Restraint Schedule. Submit details of the proposed joint restraint, showing the type and location, to the Engineer for approval. All pipe and fitting restrained joints must be rated for a minimum of 250 psi.



TABLE 1: PIPE RESTRAINT SCHEDULE  
GROUND BURIED PRESSURE PIPE – DUCTILE IRON PIPE

Pipe Diameter	Length (Ft) of Pipe Restraint for Each Direction from Fitting						
	Tee, 90° Bend	45° Bend	22-½° Bend	11-¼° Bend	Dead End	Reducer (One Size Reduction)	Reducer (Two Size Reduction)
4"	11	5	2	1	28	--	--
6"	16	7	3	2	41	21	--
8"	21	9	4	2	52	21	49
12"	30	12	6	3	75	40	81

2. Horizontal Directional Drilling Construction – Shall conform to the Horizontal Directional Drilling Special Provision of these Municipal Utilities Standards.
3. Air Release and Clean-out Structures - Install air release and clean-out structures in locations indicated on the plans and conforming to the Standard Details of these Municipal Utility Standards.
4. Restoration and Clean-up - In accordance with the Slope Restoration Special Provision.
5. Pressure and Leakage Testing. Furnish all apparatus and water required to perform the pressure and leakage tests.
  - A. Pre-test Procedures - Provide any temporary plugs and blockings as required for the test, and then completely fill the line with water with a special emphasis upon removing all air from the pipe.
  - B. Preliminary Test – Conduct a preliminary pressure test to ascertain if there are any major leaks. After any leaks are corrected, re-run the test until results are satisfactory.
  - C. Final Pressure Test – Conduct in the presence of the Township Engineer, who must receive 24 hours notice prior to testing. The test pressure must be at least 1.5 times the design pump discharge pressure or 100 psi, whichever is greater, measured at the lowest point in the line. If it is necessary for the Engineer to observe more than one test, the Contractor will be liable for the additional cost involved. Pressure must not drop more than 5 psi in a period of 2 hours.

- D. Leakage Test - In no case shall the leakage exceed the following gallons of water in a 2 hour period:

<u>Pipe Diameter</u>	<u>4"</u>	<u>6"</u>	<u>8"</u>	<u>10"</u>	<u>12"</u>	<u>14"</u>	<u>16"</u>	
Allowable leakage	0.25	0.60	1.0	1.3	2.5	2.8	3.3	(HDPE)
per 1000 L.F.	0.55	0.80	1.1	1.4	1.6	1.9	2.2	(Ductile Iron)

- E. General - Provide all labor and materials, etc. as required to repair any leaks, or otherwise required to meet these tests. All visible leaks must be repaired, regardless of the amount of leakage. Any excavation or construction required must be done as previously required herein.

SPECIAL PROVISION  
FOR  
**HORIZONTAL DIRECTIONAL DRILLING**

DCT

1 of 7

7/2012

- a. Description.** The work of **Horizontal Directional Drilling** consists of furnishing all labor, equipment, and materials required for the installation of water mains and sewage force mains and appurtenances contained in this Special Provision.

1. References

- A. ASTM F1962 – Standard Guide for use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit under Obstacles, including River Obstacles.

2. Contractor Qualifications

- A. The Horizontal Directional Drilling Contractor shall have successfully completed the installation of at least 20,000 feet of similar sized utilities and have been actively engaged in horizontal directional drilling for a minimum of five years.
- B. Field supervisory personnel: Experienced in the performance of the work and tasks as stated herein for a minimum of three years.
- C. Fusion Technician Requirements: Fully qualified by the pipe supplier to install pipe of the type(s) and size(s) being used. Qualification must be current as of the actual date of fusion performance on the project.

3. Submittals. Submit the following Contractor's Drawings:

- A. Contractor qualification data, including name of the field supervisor and fusion technician name(s) and certification.
- B. Size, capacity and arrangement of equipment.
- C. Location and size of drilling and receiving pits.
- D. Dewatering and methods of removing spoils material.
- E. Method of installing locator wire and pipe and locator wire attachment detail.
- F. Type, location, and method of installing locator station.
- G. Method of fusion pipe segment and type of equipment.
- H. Type of cutting head.
- I. Method of monitoring and controlling line and grade, guidance system data sheets, and operating instructions.

- J. Detection of surface movement.
- K. Bentonite drilling mud for information only:
  - (1) Products information, material specifications, and handling procedures.
  - (2) Material safety data sheet and special precautions required.
  - (3) Method of mixing and application.
- L. Frac out remediation procedures.
- 4. Site Conditions
  - A. Complete directional drilling so as not to interfere with, interrupt, or endanger surface and activity thereon.
  - B. Do not use directional drilling in rock stratum or subsoil consisting of boulders and underground obstructions that impede the process.
  - C. Comply with applicable ordinances, codes, statutes, rules, and regulations of State of Michigan, MIOSHA, applicable county building codes, and applicable regulations of Federal Government, OSHA 29CFR 1926, and applicable criteria of ANSI A10.16-1995 (R2001), "Safety Requirements for Tunnels, Shafts, and Caissons."
- 5. Record Drawings. Submit record drawings in duplicate within five days after completing the pull back. Include a plan, profile, and all information recorded during the progress of the work in the record drawings. Work will not be accepted without record drawings.

**b. Materials**

- 1. Tracer Wire. Copper clad steel, #10 AWG solid, steel core, soft drawn high strength tracer wire as manufactured by Copperhead Industries, LLC or Pro-Trace HDD-CCS PE45 as manufactured by Pro-Line Safety Products. Tracer wire to be rated for direct burial use at 30 volts.
- 2. Locator Station. Consists of an access box containing the tracer wires attached to a lug.
  - A. Box material may be either cast or ductile iron, or high grade ABS or rigid plastic, heavy duty, adjustable.
  - B. Lid Material. Locking lid made of cast or ductile iron. Cover to read "Force Main" or "Water Main".
  - C. Acceptable Manufacturers.
    - (1) Copperhead Industries – Snake Pit Magnetized Tracer Box.
    - (2) CP Test Services – Figure #TWABADJ18.

### 3. Equipment

#### A. Drilling System.

- (1) Drilling Rig. Consists of a hydraulically powered system to rotate, push, and pull hollow drive pipe into the ground at a variable angle while delivering a pressurized fluid mixture to a guidable drill (bore) head. Anchor the rig to the ground to withstand the pulling, pushing and rotating pressure required to complete the bore. The hydraulic power system must be self-contained with sufficient pressure and volume to power drilling operations. Rig must have a system to monitor and record maximum pull-back pressure during pull-back operations; Record information and provide copy to Engineer.
- (2) Drill Head. Steerable by changing its rotation and provides the necessary cutting surfaces and drilling fluid jets.
- (3) Drill Pipe. High quality 4130 seamless tubing, grade D or better, with threaded box and pins. Tool joints should be hardened to 32-36 RC.

- B. Guidance System. Use a Magnetic Guidance System (MGS) or proven gyroscopic system to provide a continuous and accurate determination of the location of the drill head during the drilling operation. The guidance must be capable of tracking at all depths up to eighty feet and in any soil condition, including hard rock and enable the driller to guide the drill head by providing immediate information on the tool face, azimuth (horizontal direction), and inclination (vertical direction). The guidance system must be accurate to  $\pm 2\%$  of the vertical depth of the bore hole at sensing position at depths up to one hundred feet and accurate within 5 feet horizontally.

The guidance system must be of a proven type and operated by personnel trained and experienced with this system. The Operator must be aware of any magnetic anomalies on the surface of the drill path and consider such influences in the operation of the guidance system if using a magnetic system.

- (1) Bore Tracking and Monitoring. At all times during the pilot bore, provide and maintain a bore tracking system that is capable of accurately locating the position of the drill head in the x, y, and z axis. Record these data at least once per drill pipe length or every twenty five (25) feet, whichever is most frequent.
- (2) Downhole and Surface Grid Tracking System. Monitor and record x, y, and z coordinates relative to an established surface survey bench mark. Continuously monitor and record the data at least once per drill pipe length or at twenty five (25) feet, whichever is more frequent.
  - (a) Demonstrate a viable method to eliminate error. Submit calibration results showing that the equipment is within tolerance. Follow the manufacturer's recommended calibration sequence and calibration time schedule.
  - (b) The guidance system must be capable of generating a plot of the bore hole survey for the purpose of an as-built drawing.

(c) Use a locating and tracking system capable of ensuring that the proposed horizontal and vertical alignment is installed as intended.

(3) Drilling Fluid Pressures and Flow Rates. Continuously monitor and record drilling fluid pressures and flow rates. Make these measurements during pilot bore drilling, reaming, and pullback operations.

C. Drilling Fluid System.

(1) Mixing System. Self contained, closed drilling fluid mixing system of sufficient size to mix and deliver drilling fluid and continually agitate the drilling fluid during drilling operations.

(2) Drilling Fluid. Bentonite drilling mud compatible with the environment; waste oil or environmentally non-compatible polymers can not be part of the composition.

(3) Delivery System. Capacity to provide adequate flow rate and pressure.

D. Rollers – Sufficient size to fully support the weight of the pipe during pullback operations. Use a sufficient number of rollers to prevent excess sagging of pipe. The pipe can not be dragged across the surface.

**c. Construction.**

1. Preparation

A. Excavate pits following drawings, related specifications and SESC plan.

B. Provide equipment to guard against electrocution and an alarm system on drilling equipment capable of detecting electrical current as it approaches electric lines.

C. Exploratory trenching of underground utility crossings before directional drilling operation is required. Determine utility location and elevation.

2. General

A. Determine drilling length and equipment pull strength for type of soil encountered.

B. Provide method to control line and grade.

(1) Provide and maintain instrumentation that accurately locates pilot hole.

(2) Drill pilot hole along path following Drawings to these tolerances:

(a) Vertical alignment plus or minus 5% of the depth to the top of the pilot hole. Vertical path of the pilot hole must not establish new high points not shown on approved construction plans. Maintain constant slopes as shown on the drawings.

(b) Horizontal alignment plus or minus 1.0 foot.

- (3) Deviations between the recorded and design bore path must be calculated and reported on the daily log. If the deviations exceed the specified tolerances, report such occurrences immediately to the Township Engineer. Undertake all necessary measures to correct deviations and return to design line and grade.
    - (4) Include electronic monitoring of the horizontal and vertical drilling head location. Obtain an accuracy range within 1 inch of actual position of the pipeline. Record position readings at a maximum of 25 foot intervals.
    - (5) At completion of pilot hole drilling, furnish Township Engineer tabulations of horizontal and vertical alignment.
  - C. When water is encountered, provide dewatering in accordance with the Special Provision for Dewatering and as follows:
    - (1) Provide and maintain a dewatering system of sufficient capacity to remove water.
    - (2) Keep excavation free of water until backfill operation is in progress.
    - (3) Perform dewatering in such a manner that removal of soils particles are held to a minimum.
    - (4) Dewater into a sediment trap following SESC plans and specifications.
  - D. Maintain close observation to detect settlement or displacement of surface and adjacent facilities.
    - (1) Notify Township Engineer immediately if settlement or displacement is detected.
    - (2) Act to maintain safe conditions and prevent damage.
3. Drilling Operation
- A. Drilling Fluids
    - (1) Maintain drilling fluid in bore hole to increase stability of the surrounding soil and reduce drag on pulled pipe.
    - (2) Dispose of drilling fluid and other spoils at location following laws, ordinances, rules, and regulations of local jurisdiction.
    - (3) Transport excess fluids and other spoils to the disposal site.
    - (4) Minimize drilling fluid at locations other than entry and exit points. Immediately clean up any drilling fluids that inadvertently surface.
    - (5) Provide clean water for drilling.
  - B. Pilot Hole Drilling
    - (1) Angle entry hole so that curvature of pilot hole does not exceed allowable bending radius of pipe.

(2) Be able to make a turn of up to 90 degrees and maintain a curvature not to exceed allowable bending radius of pipe.

(3) Alignment Adjustment and Restarts

(a) Follow pipeline alignment on approved construction plans within tolerances specified herein. Before adjustments, notify Engineer for approval.

(b) Notify Engineer when forward motion of operation is stopped by an obstruction.

(i) Abandon in place with drilling fluid, unless Engineer directs otherwise.

(ii) Upon Township Engineer's approval, attempt a second installation at approved location. Alternatively, outside of sensitive areas identified on the Drawings, excavate at the point of difficulty and install the pipe by open cut method.

(4) Withdrawals, abandonments, and restarts are at no additional cost to the Township.

(5) Exercise caution including, but not limited to, locating utilities, drilling downholes (test pits) to observe drill stems or reamer assembly to clear other existing utilities.

4. Pipe Installation

A. Provide a swivel to reaming assembly and pull section of pipe to minimize torsional stress on pull section after drilling pilot hole.

B. Hold reaming diameter to the following limits:

(1) Smaller than 8 inches: outside diameter of pipe plus 4 inches

(2) 8 inches to 24 inches: 1.5 times the outside diameter of pipe being installed

(3) Larger than 24 inches: outside diameter of pipe plus 12 inches

C. Protect pull section as it proceeds during pull back so that it moves freely and is not damaged.

D. Ensure that the minimum bending radius and maximum pulling force recommended by the pipe manufacturer are not exceeded.

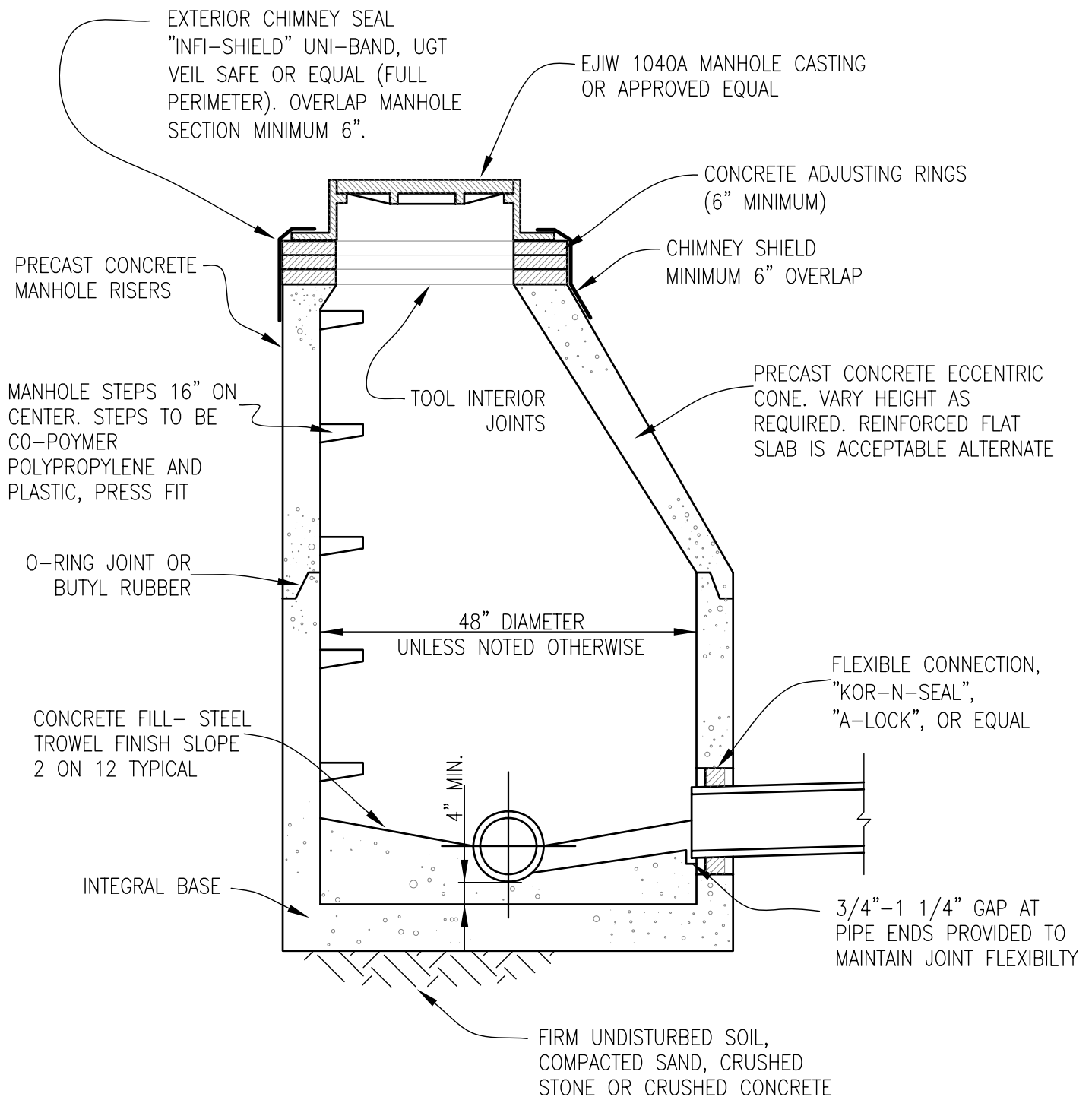
E. Pull locator wire along with pipe. Extend wire into locator station at each end of pipe. At a structure (cleanouts, air release valve, etc.), leave enough slack in the wire so that it can run to the top of the structure for connection. Install locator stations in locations shown and detail on the drawings.

(1) Perform continuity tests on locator wire. If the locator wire fails the continuity test, locate the cause of the failure and repair using connections which are suitable for underground/underwater use, or pull new locator wire.



- (2) Perform locating tests using the upstream and downstream locator stations. For the test to be successful, the force main must be able to be located at the third points when connected to the downstream locator station and again when connected to the upstream locator station.
- F. When connecting to adjacent pulled or non-pulled section of pipe, allow pull section of pipe to extend past termination point. Make tie-ins the next day after pullback of pipe. Expose sufficient length of pipe at connection point to verify that no high points were constructed at the connection points.
- G. Construct force main air release structures on high points of the force main in locations noted on the drawings. Construct air release structures in accordance with the details on the drawings.
- H. Construct force main cleanouts in locations noted on the drawings. Construct cleanouts in accordance with the details on the drawings.
- I. Test pit pipe installation to verify horizontal and vertical alignment.
  - (1) One test pit for every 500 feet along length of pipeline.
  - (2) Township Engineer may order additional test pit for each test pit that reveals pipeline installation is not in compliance with the approved construction plans at no additional cost to the Township.
- J. Replace portions of the pipeline not in compliance with the approved construction plans at Township Engineer's direction and at no additional cost to the Township.
- K. Pump Test: Conduct a pump test of the force main utilizing the existing pump station, if available, or temporary pumps provided by the Contractor.
  - (1) Measure static head (pressure), flow rate, and dynamic head (pressure) of the force main.
  - (2) The pump flow rate should be equal to the flow rate developed by the pump station with a single pump running at a duplex station, or the largest pump running at a station with more than two pumps. The Contractor is responsible for providing and disposing of water required for the test.
  - (3) The force main will be acceptable if the results of the pump test demonstrate that the measured dynamic head at the design flow rate is within five percent of the calculated design dynamic head.
  - (4) If the measured dynamic head is in excess of five percent of the calculated dynamic head, locate and correct the cause of the increased dynamic head and re-run the pump test until the results are acceptable.
5. Pressure and leakage testing. Conform to the requirements of the Special Provision for Sewage Force Mains.

## STANDARD DETAILS



**NO SCALE**

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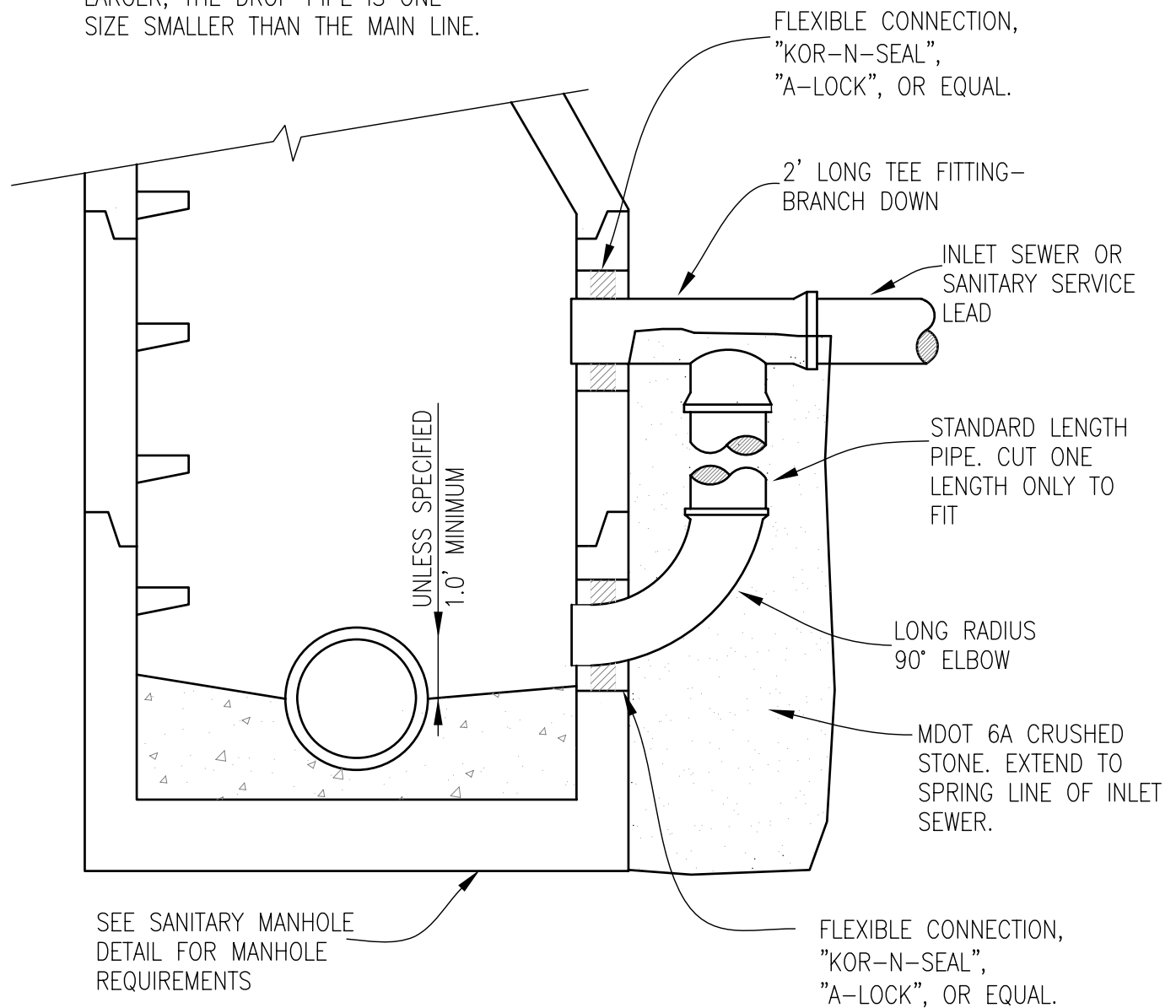
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**STANDARD SANITARY SEWER DETAILS**

**SANITARY SEWER MANHOLE**

NOTES:

1. FOR 8" DIAMETER SEWERS WITH DROP CONNECTION, THE DROP PIPE IS 8" DIAMETER.
2. FOR 10" DIAMETER SEWERS AND LARGER, THE DROP PIPE IS ONE SIZE SMALLER THAN THE MAIN LINE.



**NO SCALE**

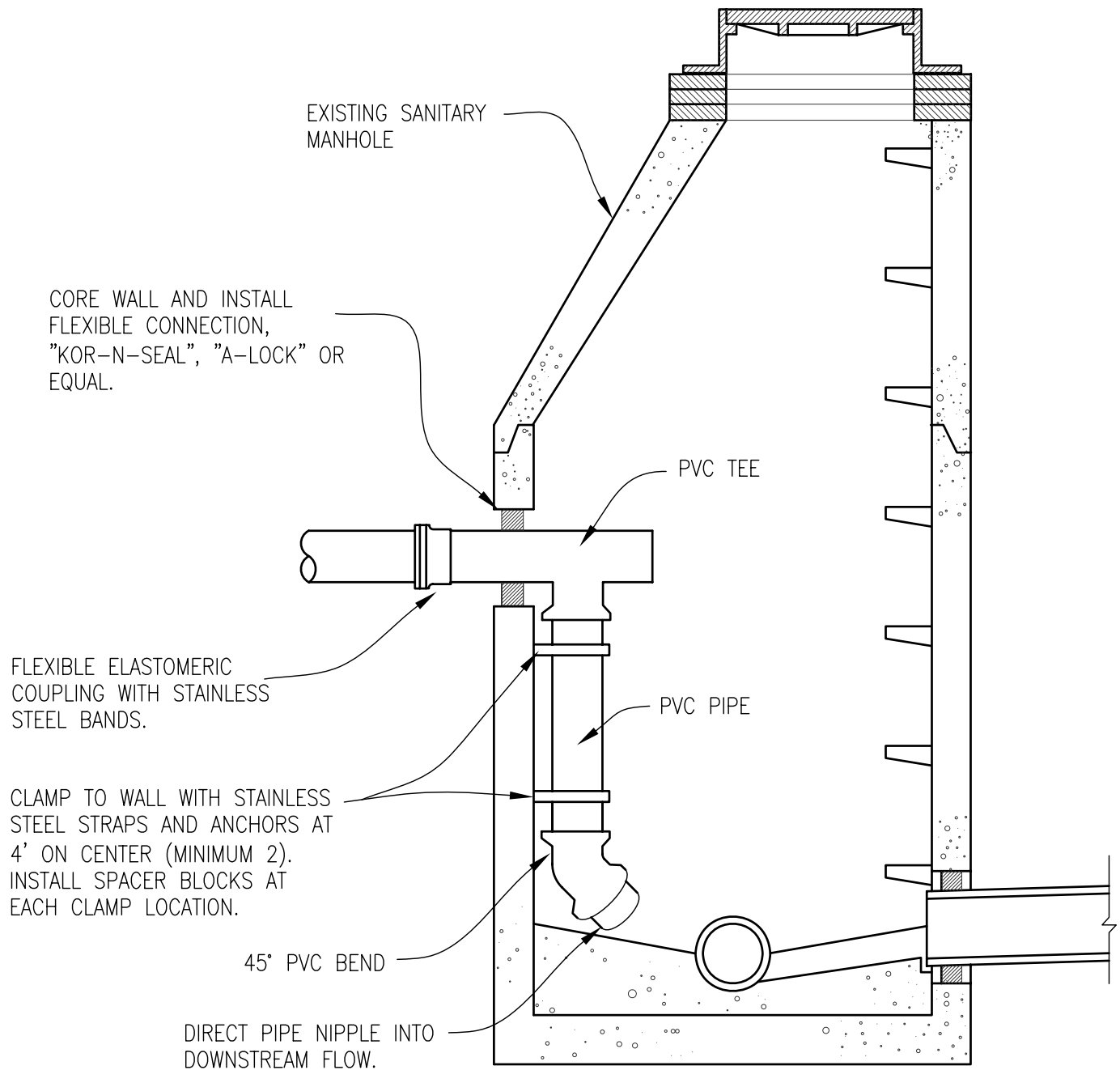
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## STANDARD SANITARY SEWER DETAILS

### EXTERNAL DROP PIPE



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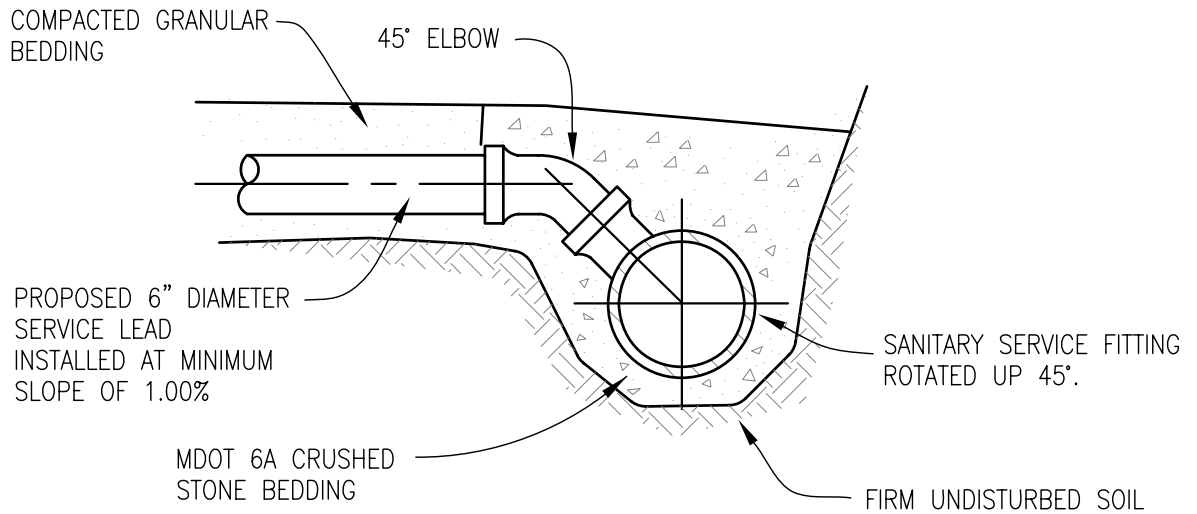
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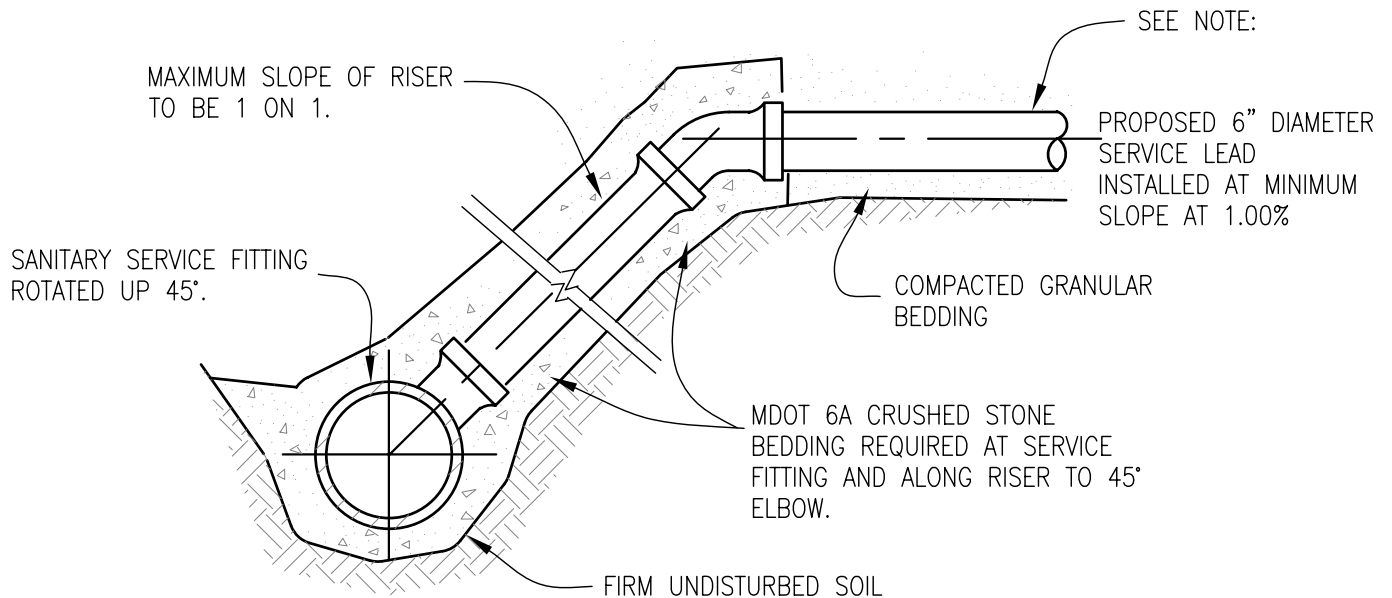
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**STANDARD SANITARY SEWER DETAILS**

**RETROFIT INTERNAL DROP PIPE**



HORIZONTAL CONNECTION



RISER CONNECTION

NOTE:  
FOR RESIDENTIAL DEVELOPMENTS, SERVICE LEAD  
SHALL BE NINE (9) FEET BELOW FINAL GRADE AT  
THE PROPERTY LINE UNLESS OTHERWISE  
APPROVED BY THE TOWNSHIP ENGINEER.

**NO SCALE**

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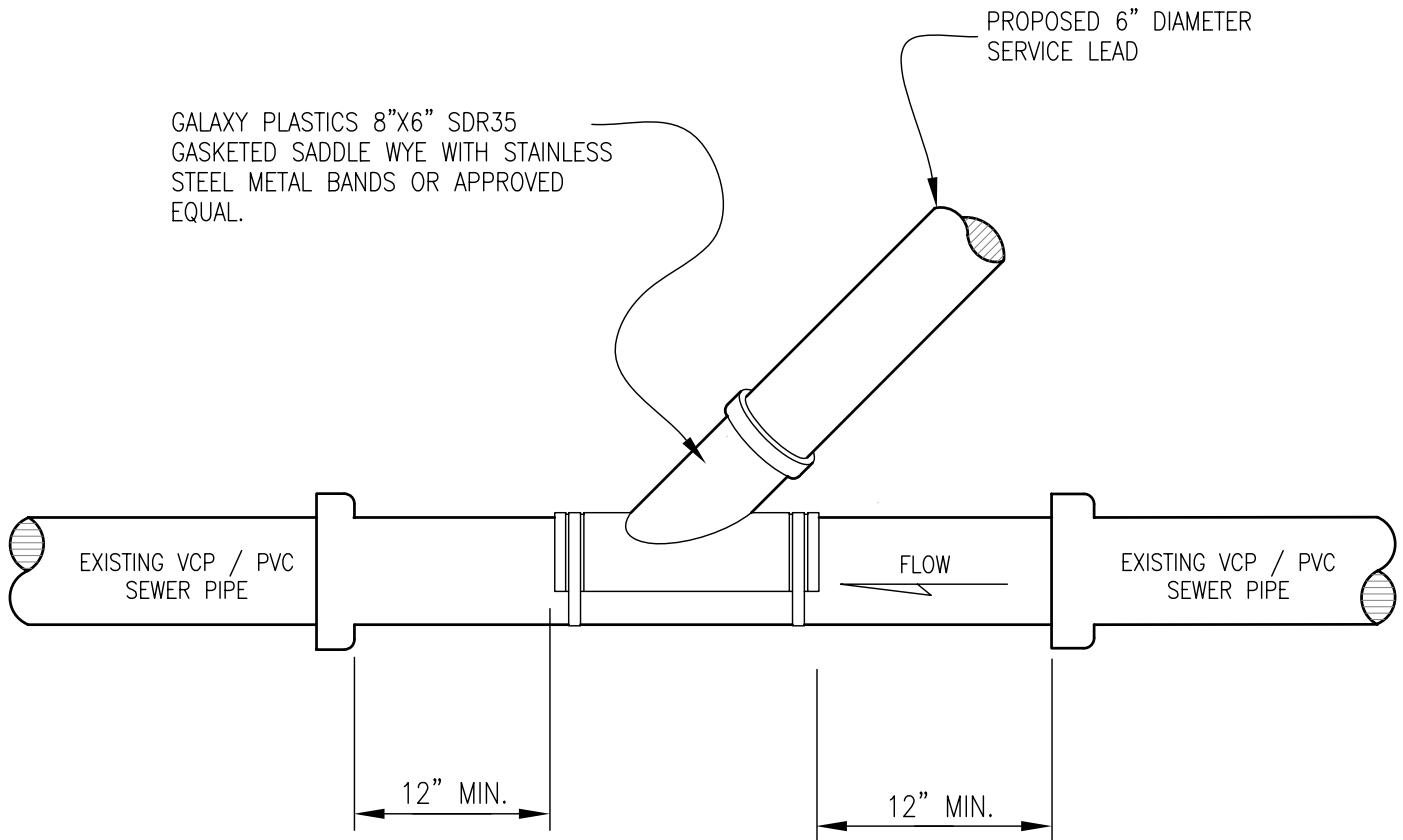
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**STANDARD SANITARY SEWER DETAILS**

**SANITARY SERVICE CONNECTIONS**

NOTE:

1. CONSTRUCT REMAINDER OF SERVICE LEAD IN ACCORDANCE WITH SANITARY SEWER SERVICE LEAD DETAIL.



**NO SCALE**

drawing:h:\drawing\symbols library\Retrofit Service Connection.dwg



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**STANDARD SANITARY SEWER DETAILS**

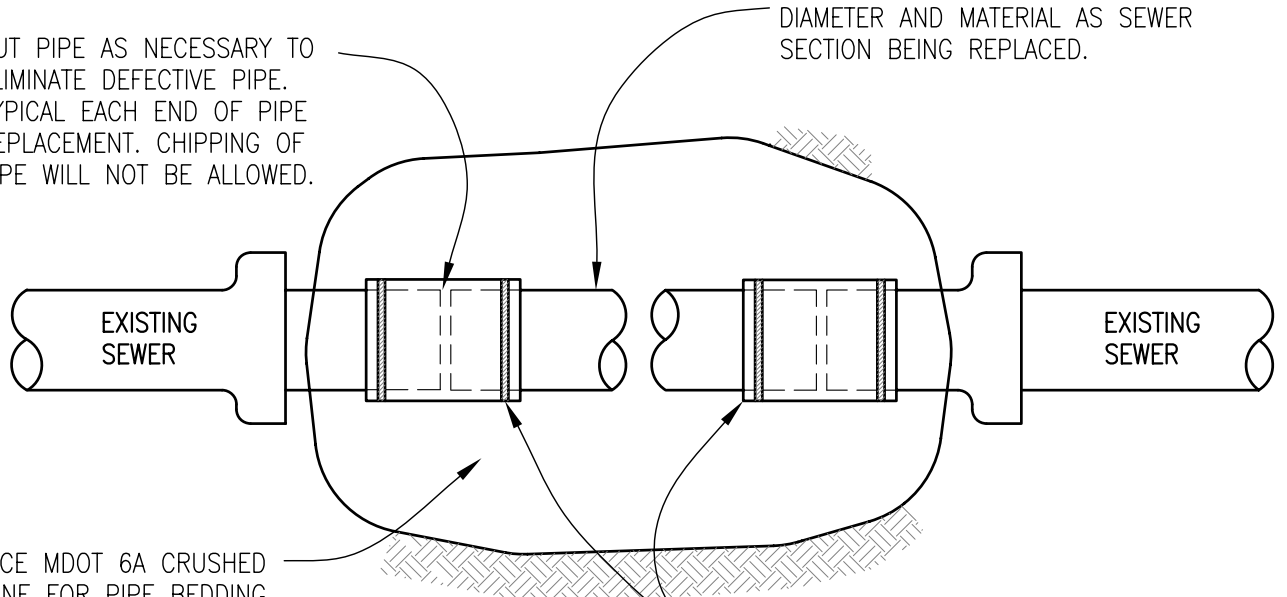
**RETROFIT SERVICE CONNECTION**

CUT PIPE AS NECESSARY TO ELIMINATE DEFECTIVE PIPE. TYPICAL EACH END OF PIPE REPLACEMENT. CHIPPING OF PIPE WILL NOT BE ALLOWED.

NEW SANITARY SEWER TO BE OF SAME DIAMETER AND MATERIAL AS SEWER SECTION BEING REPLACED.

PLACE MDOT 6A CRUSHED STONE FOR PIPE BEDDING. BACKFILL IN ACCORDANCE WITH MDOT STANDARD TRENCH DETAILS.

FLEXIBLE RUBBER COUPLING WITH STAINLESS STEEL BANDS TO BE PLACED AT JUNCTION OF NEW PIPE AND EXISTING PIPE.



**NO SCALE**

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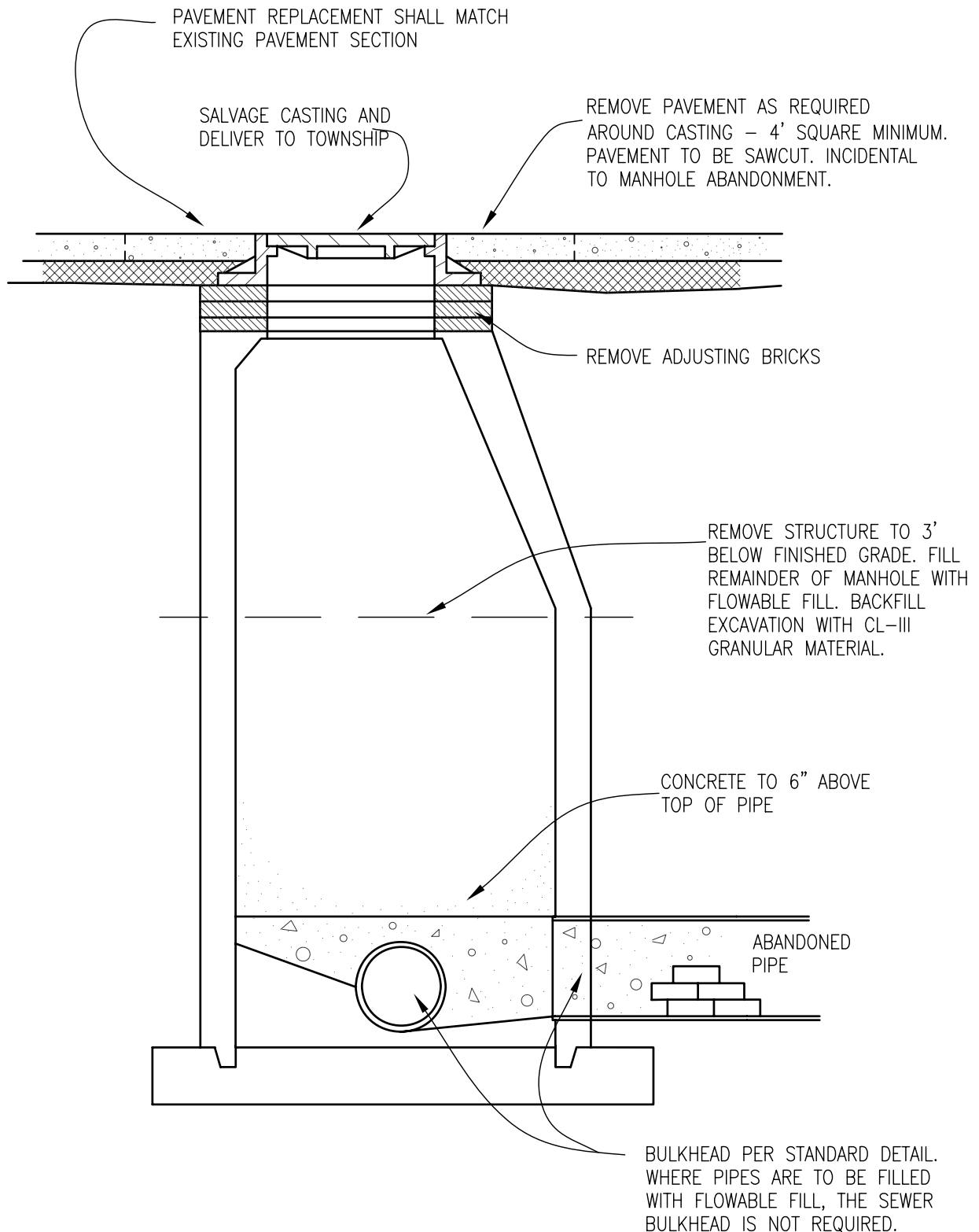
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**STANDARD SANITARY SEWER DETAILS**

**SEWER SECTION REPLACEMENT**





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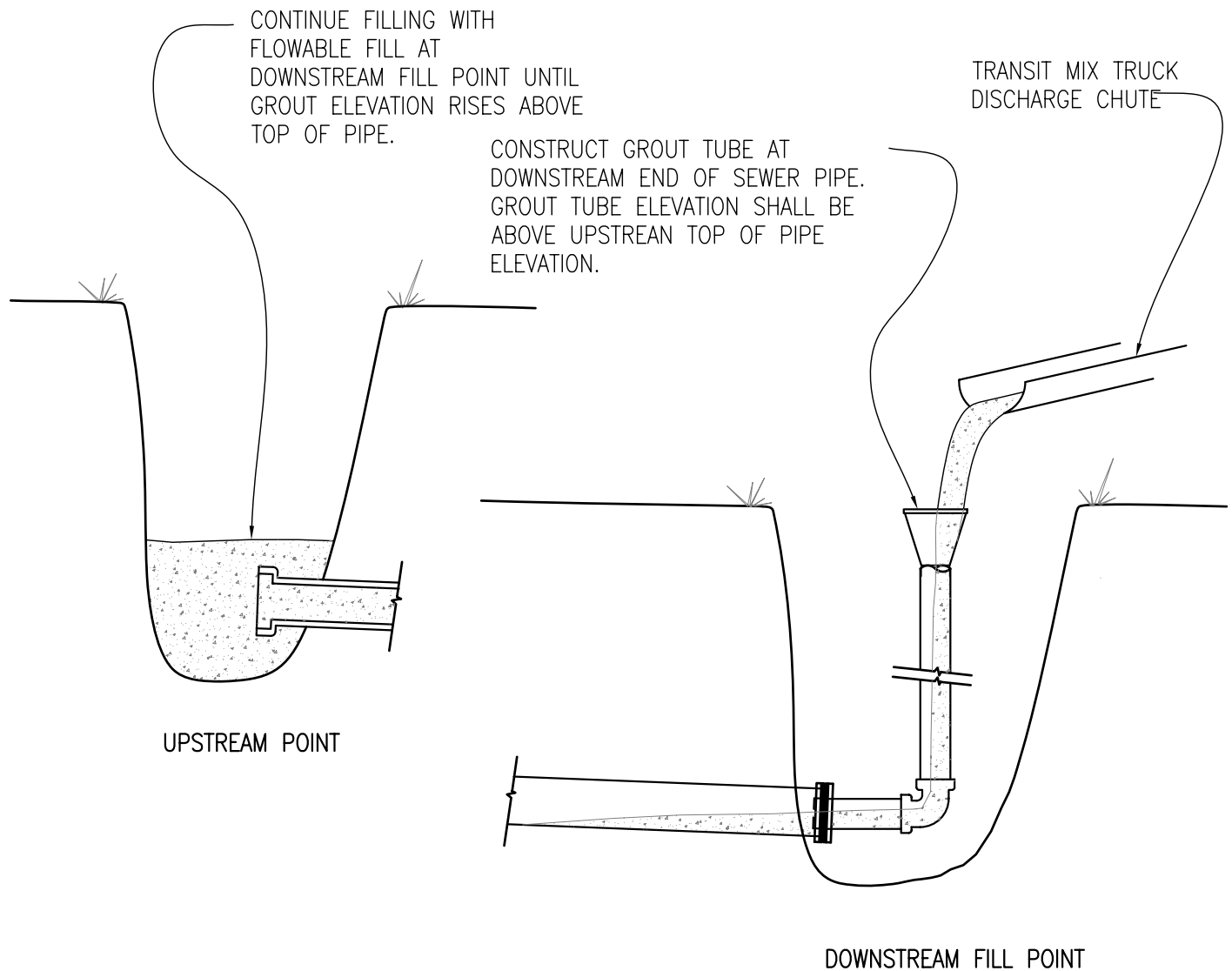
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**STANDARD SANITARY SEWER DETAILS**

**MANHOLE ABANDONMENT DETAIL**

NOTE:

1. ALLOW GROUT TO CURE 24 HOURS, THEN SAWCUT AND REMOVE GROUT TUBE AND BACKFILL EXCAVATION.
2. USE OF TRENCH EXCAVATION AS GROUT TUBE IS ACCEPTABLE, PROVIDED DISCHARGE CHUTE EXTENDS TO PIPE TO BE ABANDONED.



**NO SCALE**

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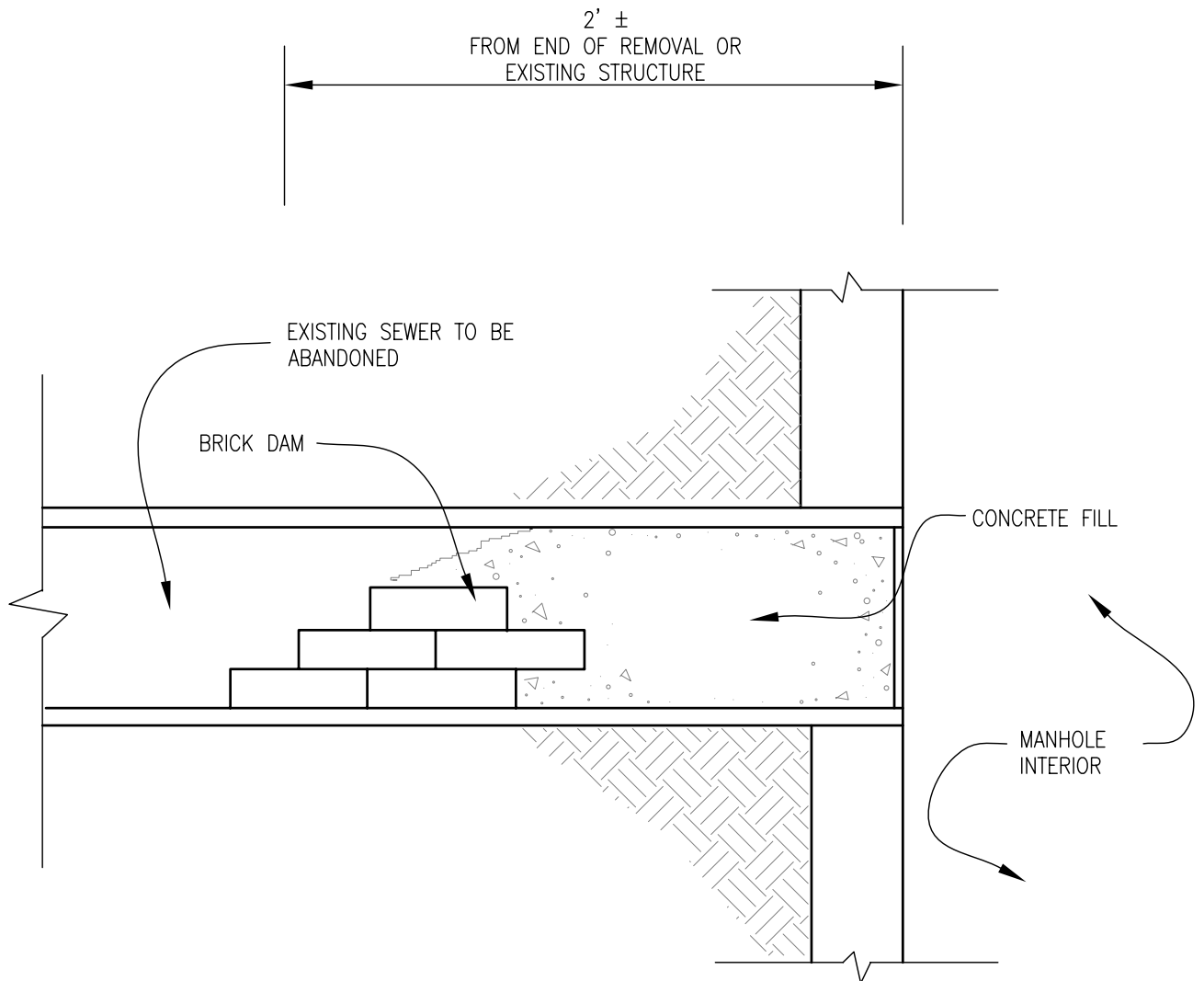
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**STANDARD SANITARY SEWER DETAILS**

**SANITARY SEWER ABANDONMENT**

NOTES:

1. WHEN PIPE TERMINATES IN AN EXISTING MANHOLE, APPLY A MINIMUM 1/2" OF CEMENT PLASTER FLUSH WITH SURFACE.
2. OTHER METHODS OF BULKHEADING PIPES MUST BE APPROVED BY THE TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION.



**NO SCALE**

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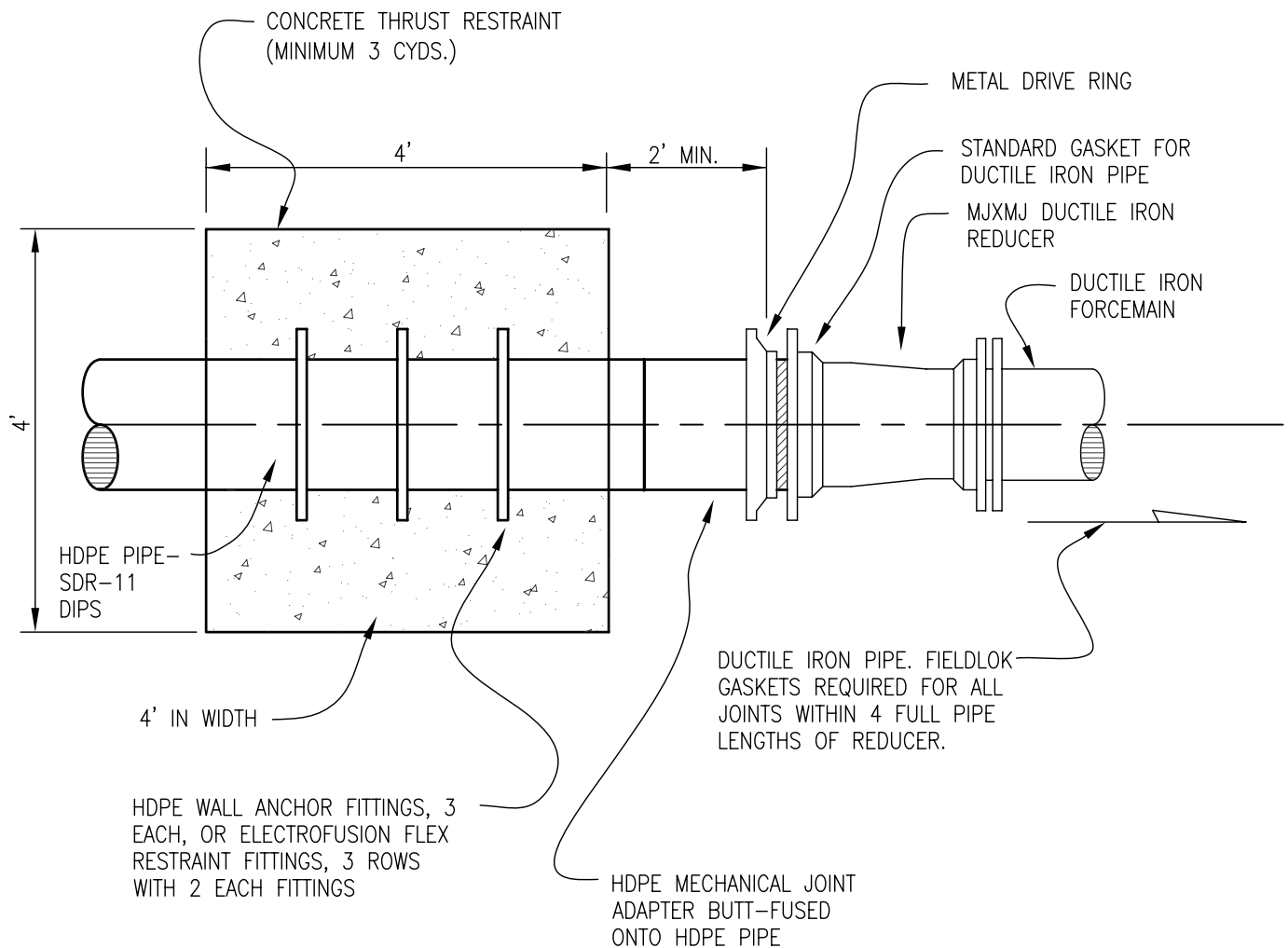
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**STANDARD SANITARY SEWER DETAILS**

**SEWER BULKHEAD DETAIL**

NOTES:

1. HDPE PIPE TO BE SDR 11 DIPS, AWWA C906 BLUESTRIPES NSF 61 DUCTILE IRON SIZE.
2. DO NOT CONSTRUCT CONNECTION FOR A MINIMUM 2 DAYS AFTER COMPLETION OF DIRECTIONAL BORE.



**NO SCALE**

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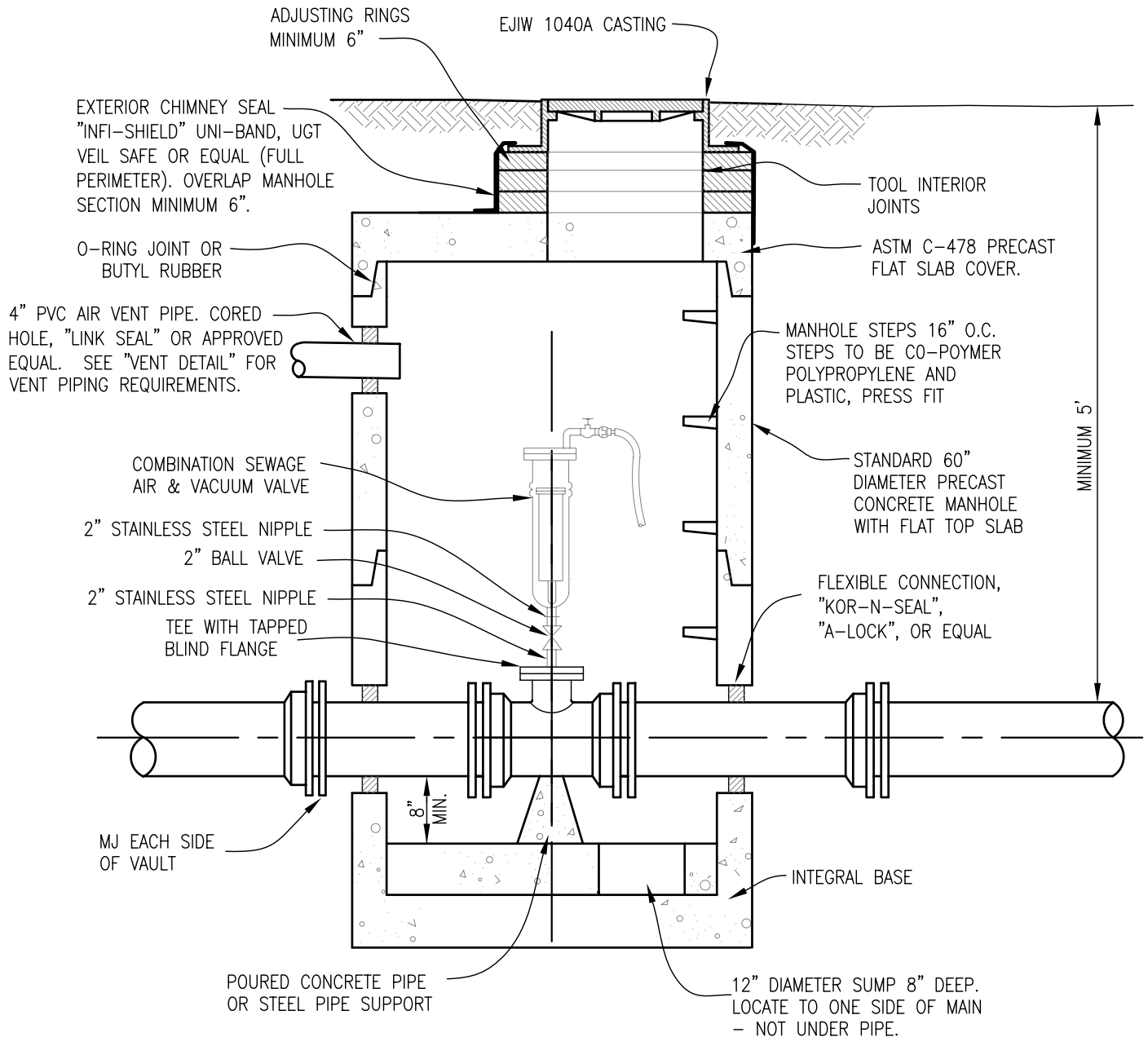
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**STANDARD SANITARY SEWER DETAILS**

**HDPE TO D. I. PIPE CONNECTION**



**NOTE:**

FURNISH A 25 FOOT LONG 3/4" I.D. DOUBLE  
LAYER REINFORCED RUBBER HOSE, WITH FEMALE  
QUICK CONNECTOR COUPLINGS ON BOTH ENDS.

**NO SCALE**

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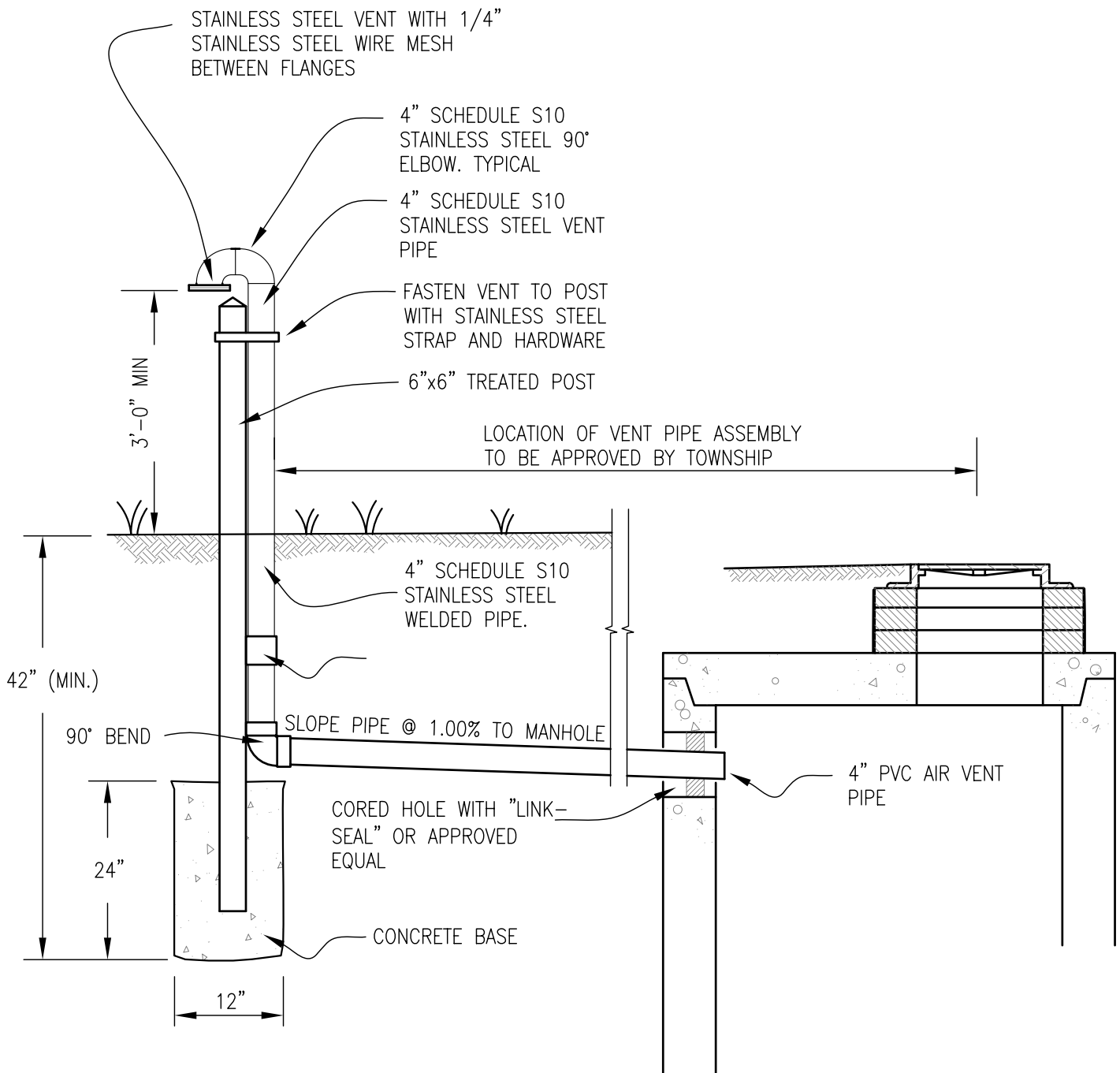
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**STANDARD SANITARY SEWER DETAILS**

**FORCEMAIN AIR RELEASE MANHOLE**



**NO SCALE**

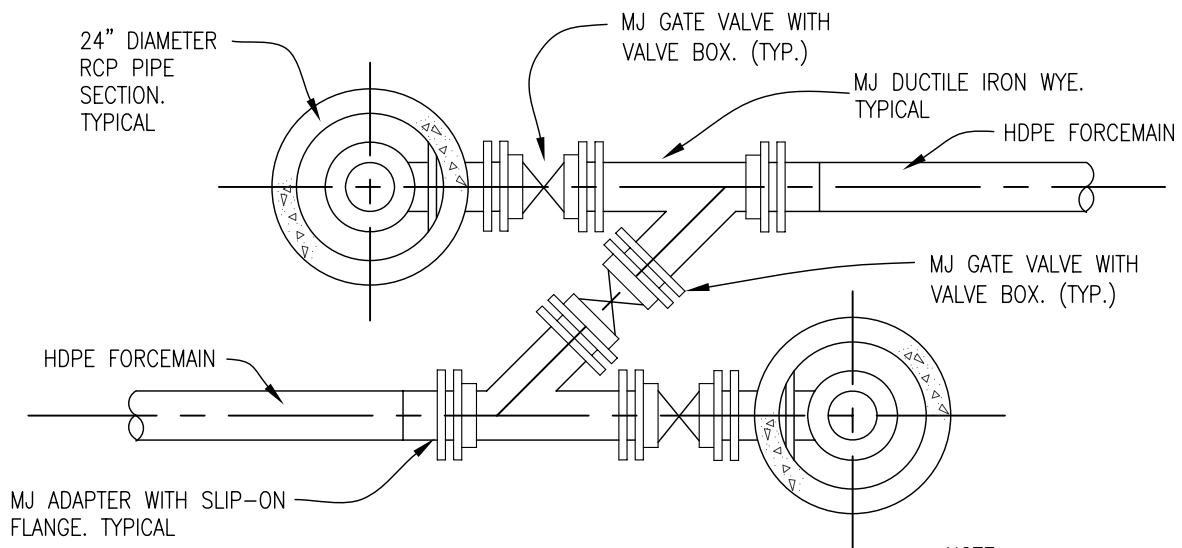
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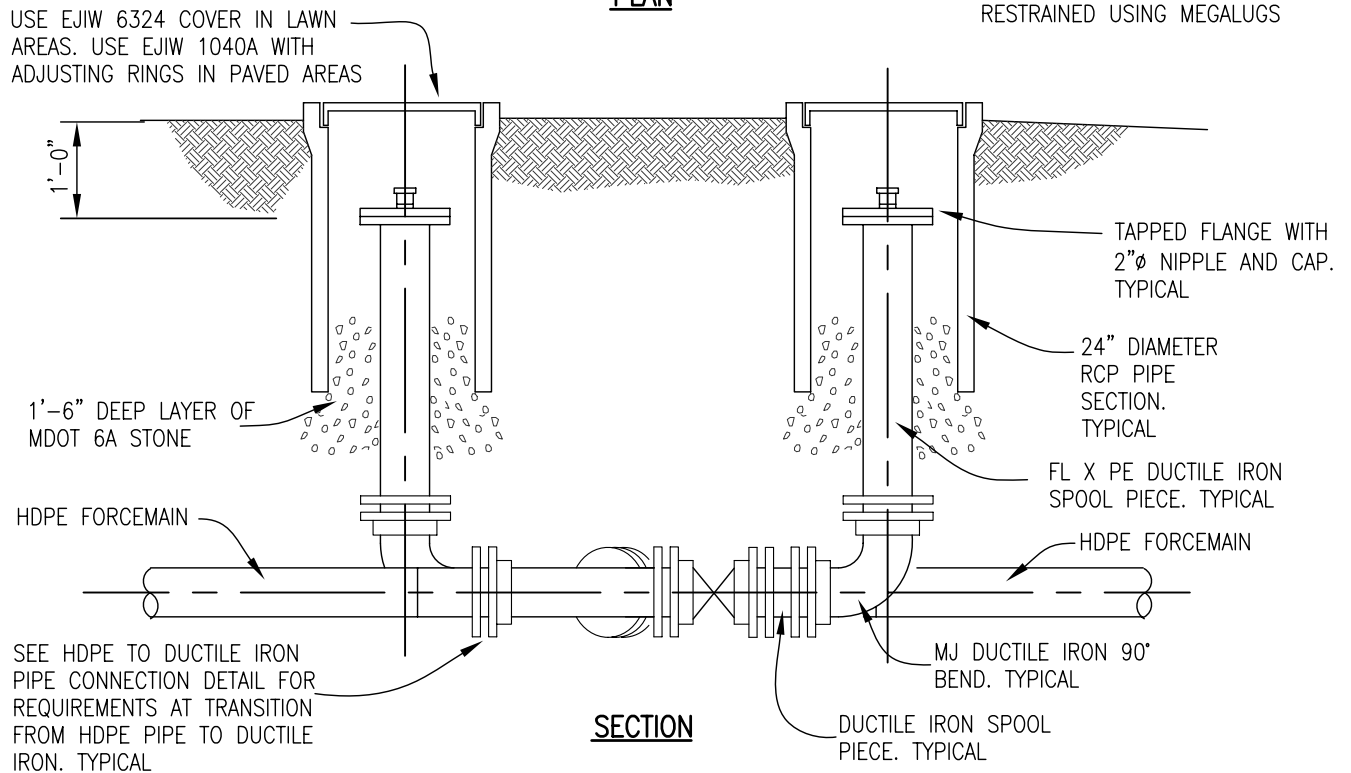
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## STANDARD SANITARY SEWER DETAILS

### AIR RELEASE MANHOLE VENT



NOTE:  
ALL JOINTS AT CLEAN-OUT TO BE RESTRAINED USING MEGALUGS



**NO SCALE**

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**Delta  
Charter Township**

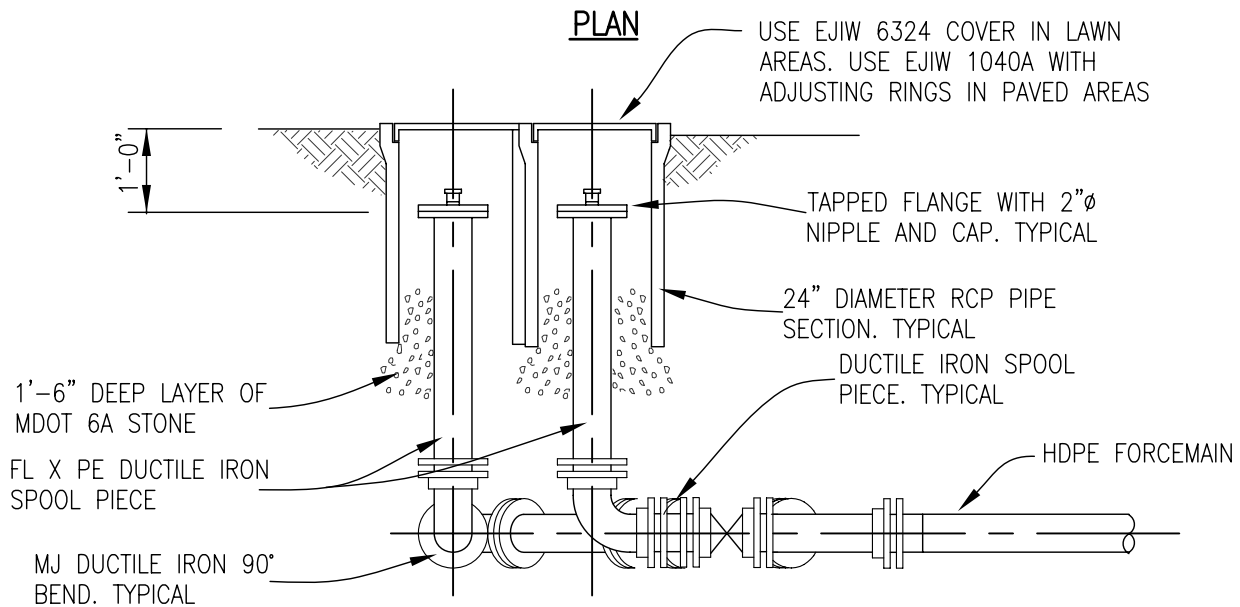
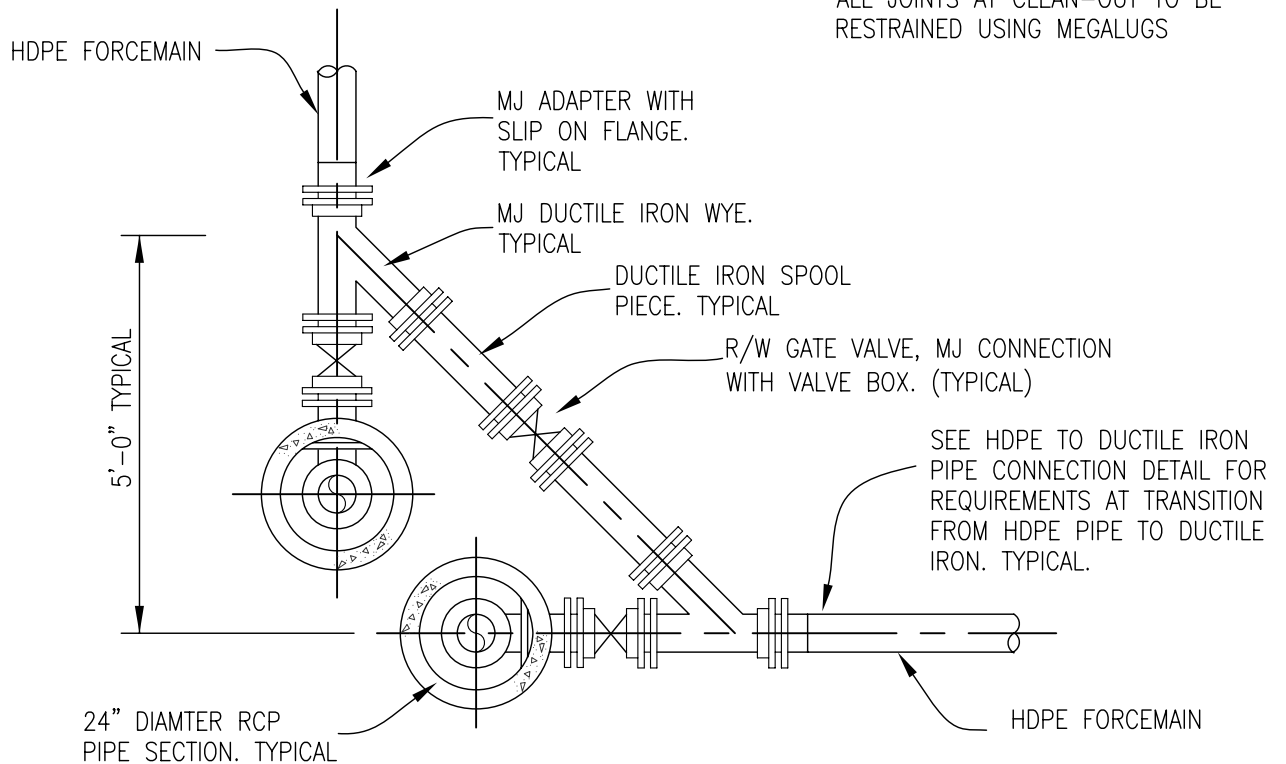
**Community Development  
ENGINEERING DIVISION**

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**STANDARD SANITARY SEWER DETAILS**

**FORCEMAIN IN-LINE CLEANOUT**

NOTE:  
ALL JOINTS AT CLEAN-OUT TO BE  
RESTRAINED USING MEGALUGS



SECTION

NO SCALE

drawing:h:\drawing\symbols library\Forcemain Clean-Out at Bend.dwg



**Delta  
Charter Township**

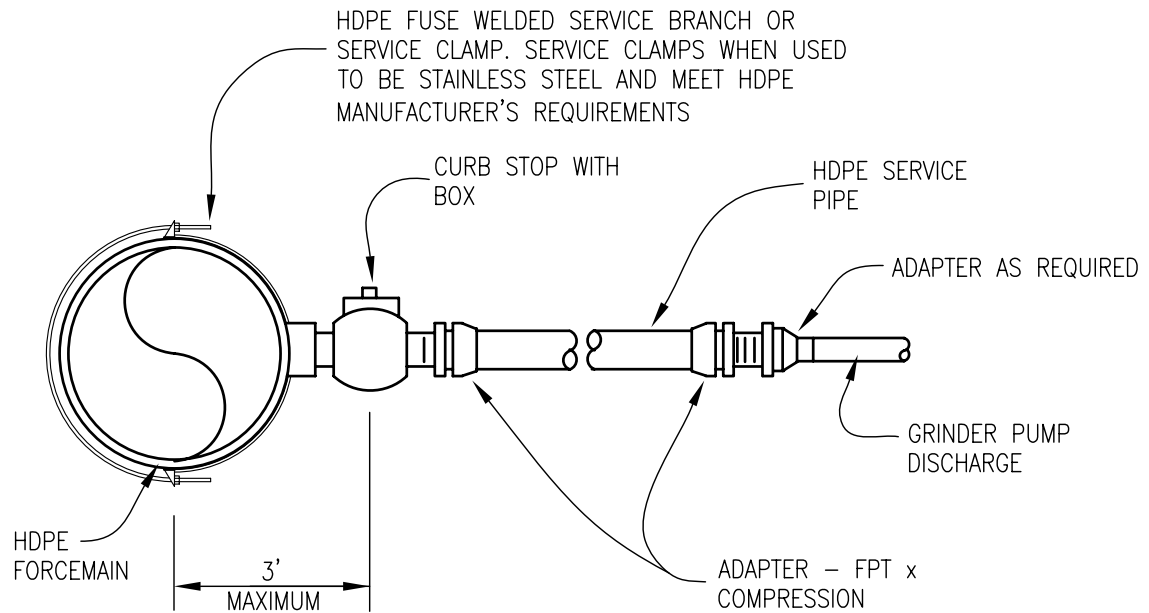
**Community Development  
ENGINEERING DIVISION**

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**STANDARD SANITARY SEWER DETAILS**

**FORCEMAIN CLEAN-OUT AT BEND**





**NO SCALE**

\\drawing\details\Installation Details\Grinder Pump Connection.dwg



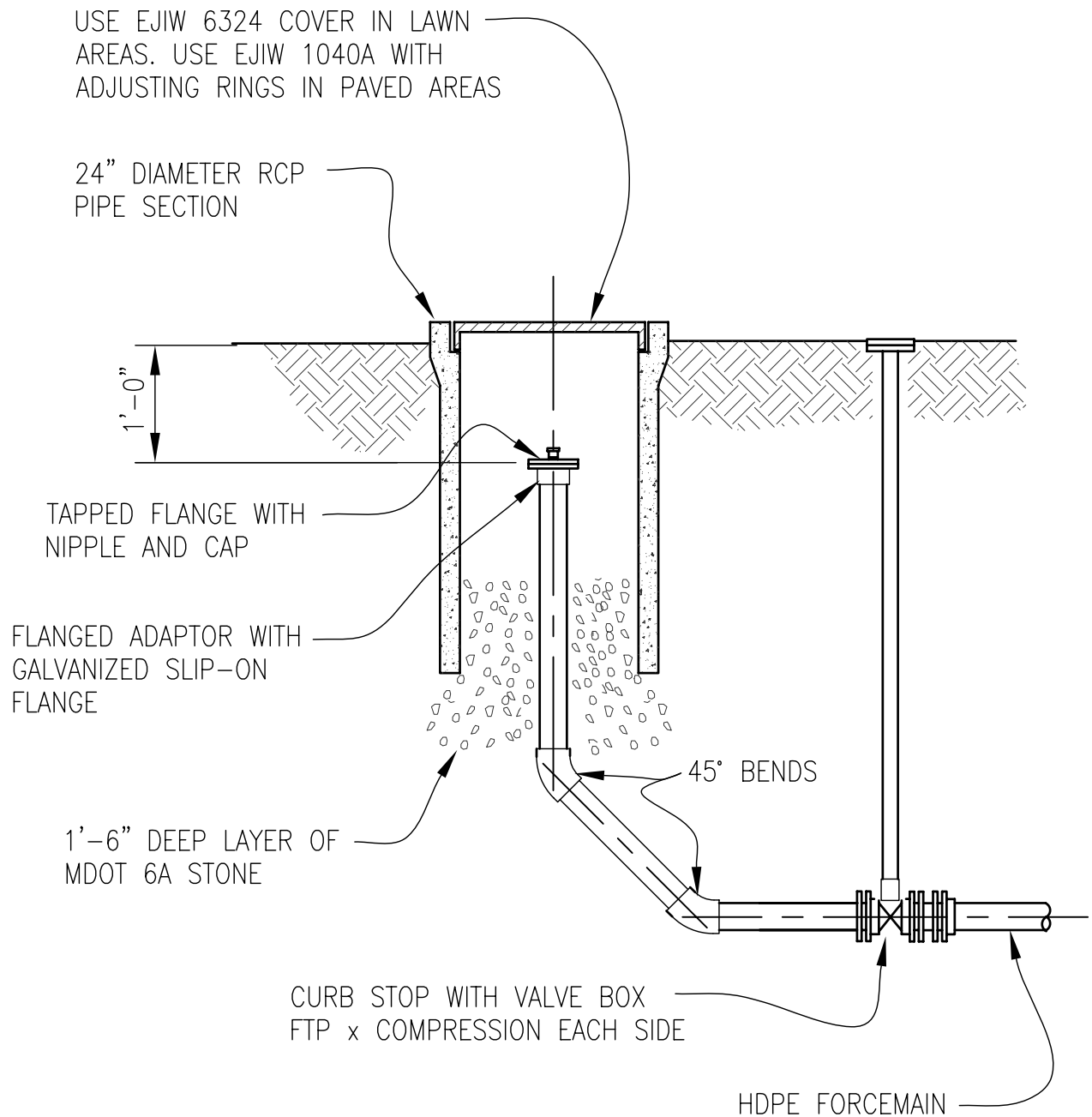
**Delta  
Charter Township**

**Community Development  
ENGINEERING DIVISION**

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**STANDARD SANITARY SEWER DETAILS**

**GRINDER PUMP CONNECTION**



**NO SCALE**

\\drawing\details\Installation Details\Grinder Pump Forcemain Flush.dwg



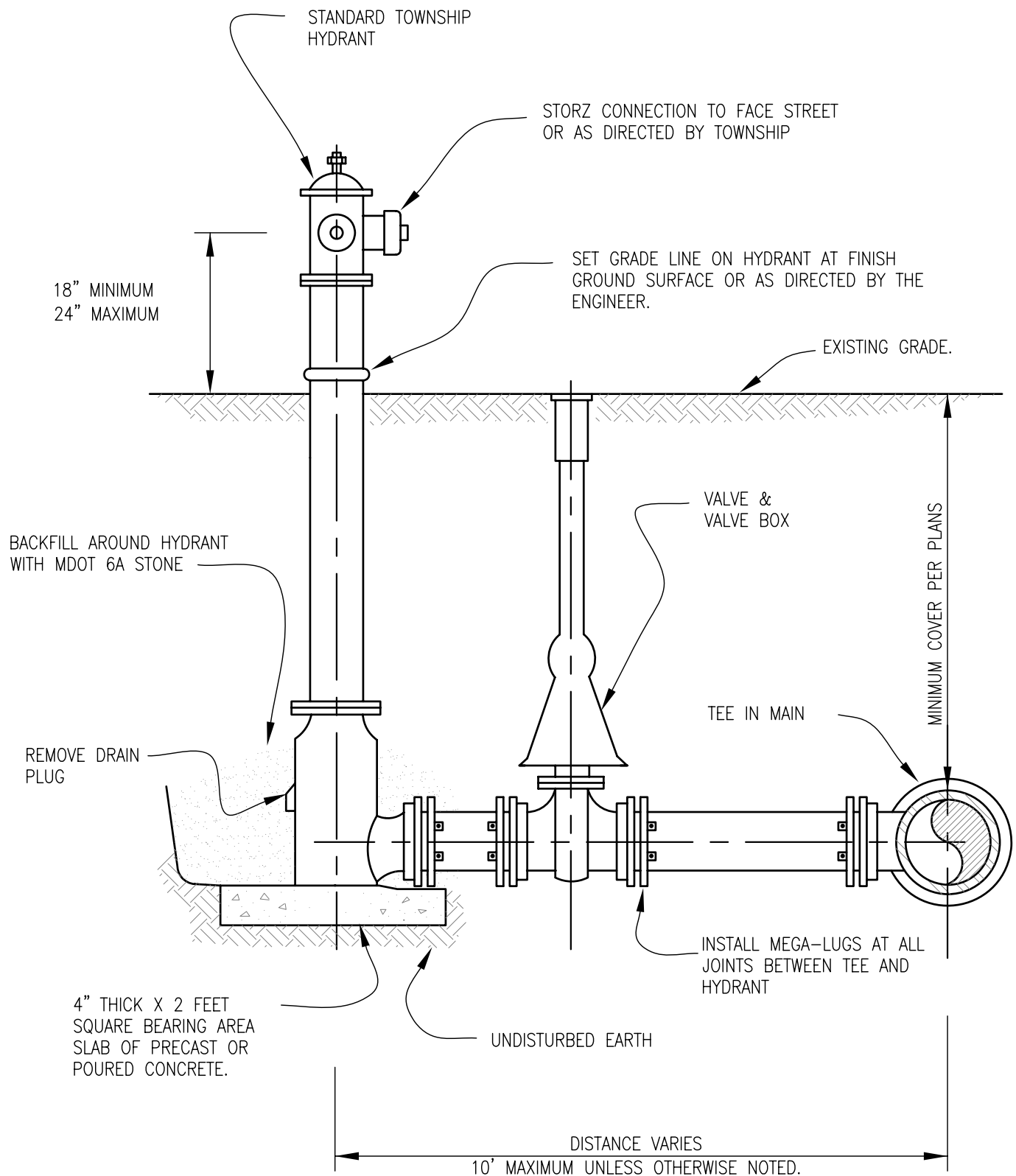
**Delta  
Charter Township**

**Community Development  
ENGINEERING DIVISION**

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**STANDARD SANITARY SEWER DETAILS**

**GRINDER PUMP FORCEMAIN  
TERMINAL FLUSHING CONNECTION**



**NO SCALE**

\\drawing\details\Installation Details\Standard Hydrant Assembly.dwg



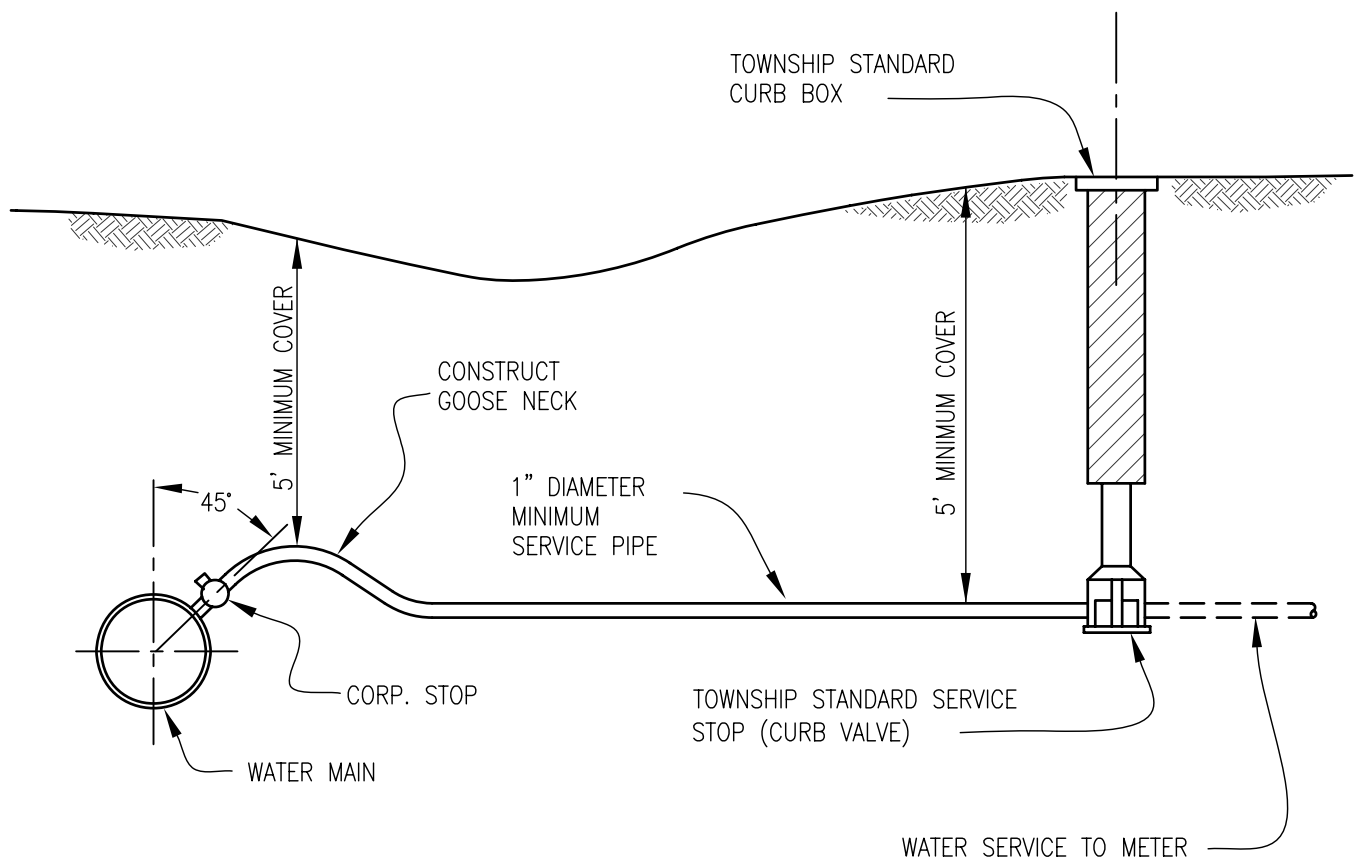
## Delta Charter Township

**Community Development  
ENGINEERING DIVISION**

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

## WATER SYSTEM DETAILS

## STANDARD HYDRANT ASSEMBLY



**NO SCALE**

\\drawing\\details\\Installation Details\\Water Service Connection.dwg



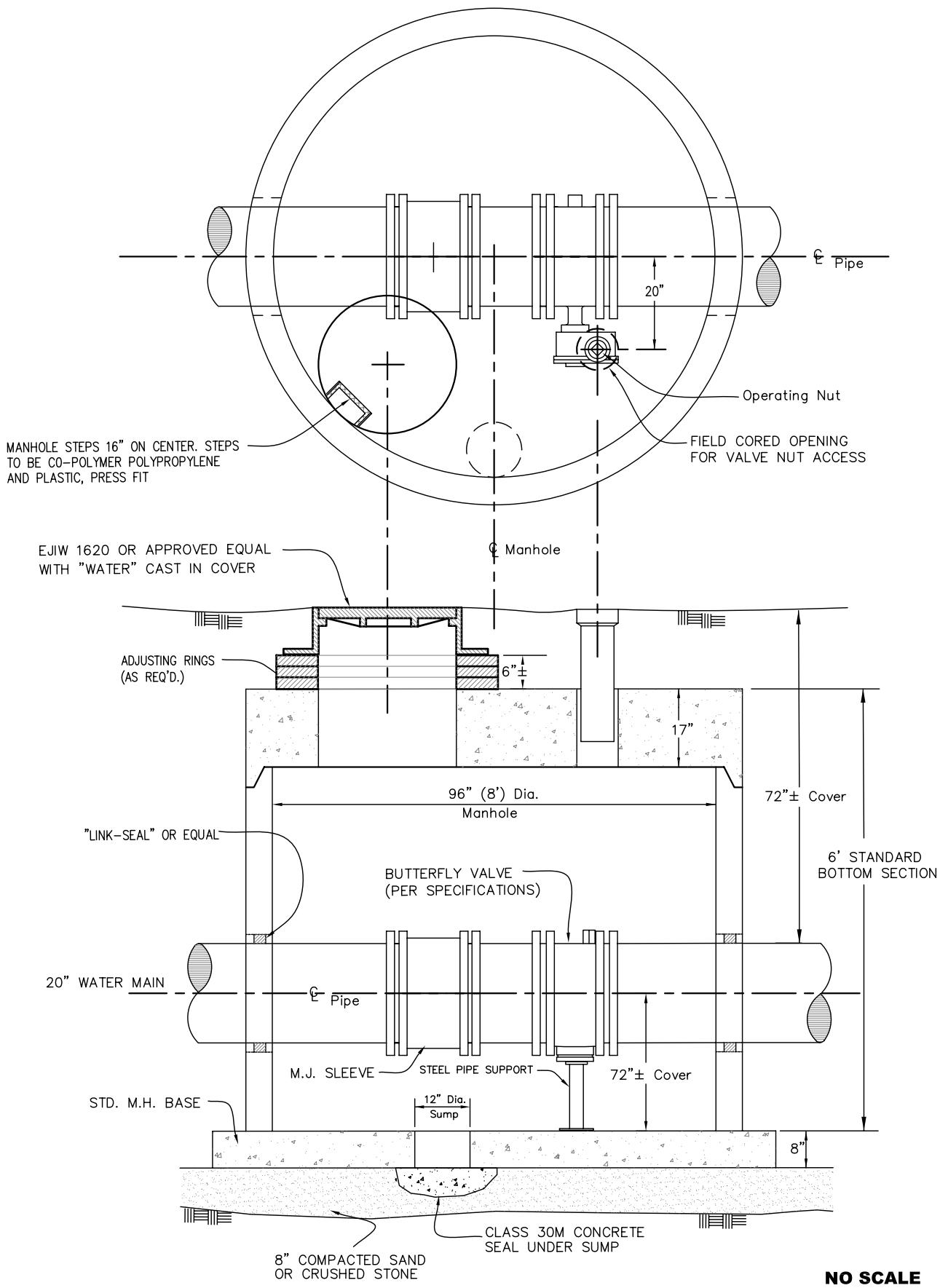
## Delta Charter Township

Community Development  
ENGINEERING DIVISION

7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

## WATER SYSTEM DETAILS

## WATER SERVICE CONNECTION



\\drawing\details\Installation Details\Valve Manhole.dwg



**Delta  
Charter Township**  
Community Development  
ENGINEERING DIVISION  
7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

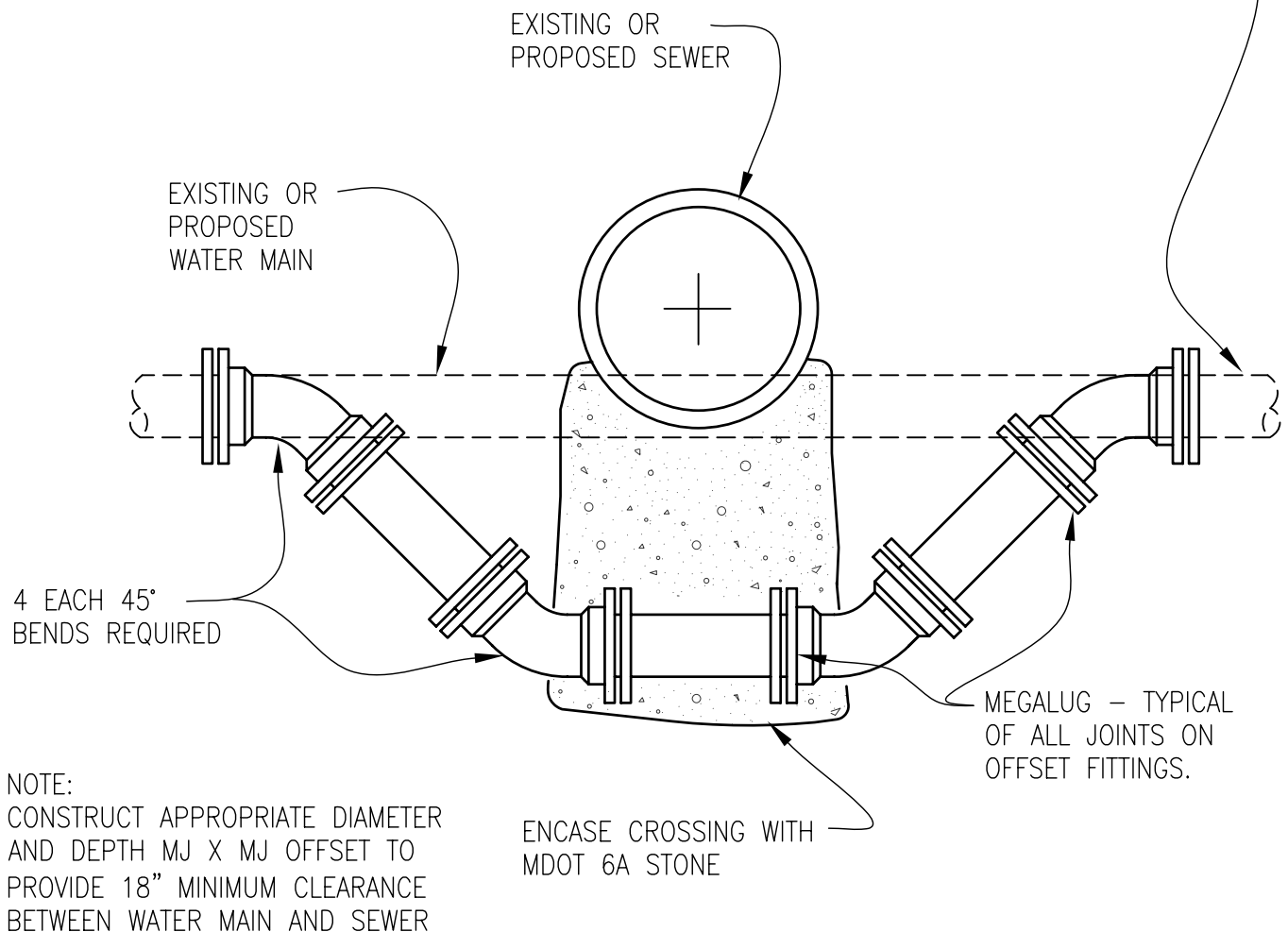
## WATER SYSTEM DETAILS

## WATER VALVE MANHOLE

NOTE:

1. PROVIDE JOINT RESTRAINT PER SPECIAL PROVISION FOR WATER MAIN INSTALLATION.

RESTRAIN ALL JOINTS WITHIN 2 FULL PIPE LENGTHS OF THE 45° BEND AT PROPOSED WATER MAINS. TYPICAL EACH SIDE OF OFFSET.



**NO SCALE**

\\drawing\details\Installation Details\Water Main Offset.dwg



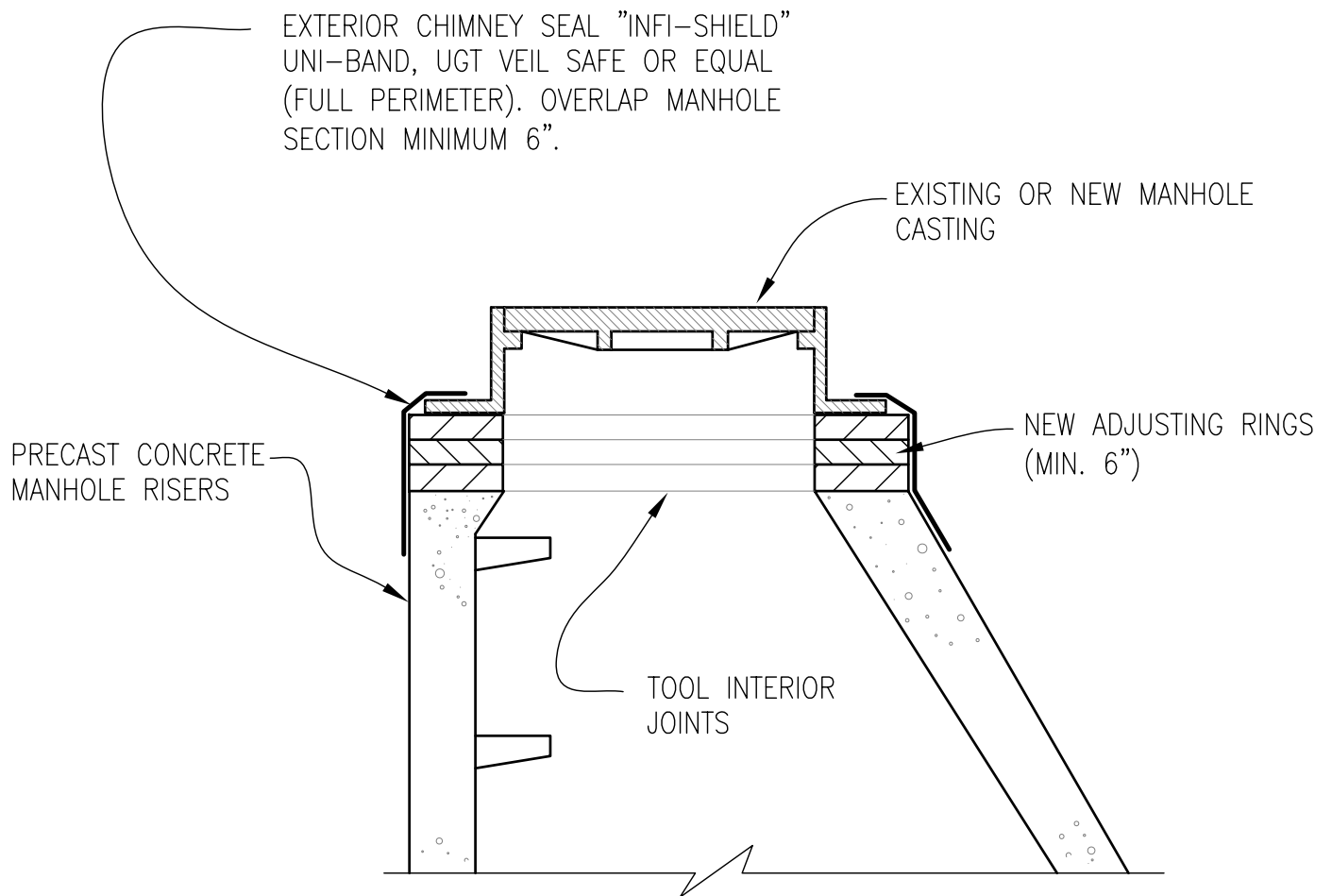
**Delta  
Charter Township**  
Community Development  
ENGINEERING DIVISION  
7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

**WATER SYSTEM DETAILS**

**WATER MAIN OFFSET**



NOTE: REMOVE EXISTING CASTING AND ADJUSTING BRICK/RINGS. INSTALL ADJ. RINGS AND CHIMNEY SEAL. RE-INSTALL EXISTING OR NEW MANHOLE CASTING.



**NO SCALE**

drawings\drawing\symbols library\Manhole Casting Adjustment.dwg



**Delta  
Charter Township**  
Community Development  
ENGINEERING DIVISION  
7710 West Saginaw Highway  
Lansing, MI 48917-9712  
(517) 323-8540

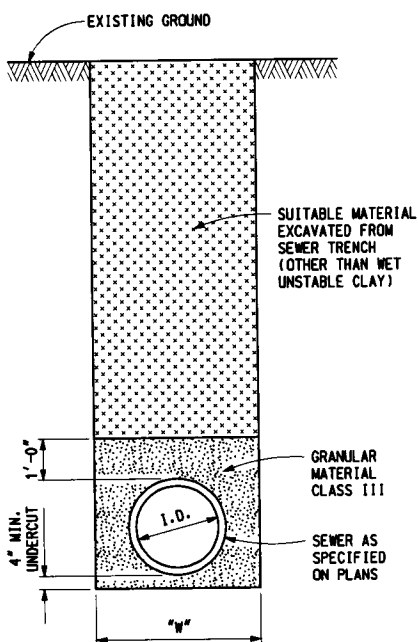
**STANDARD SANITARY SEWER DETAILS**

**MANHOLE CASTING ADJUSTMENT**



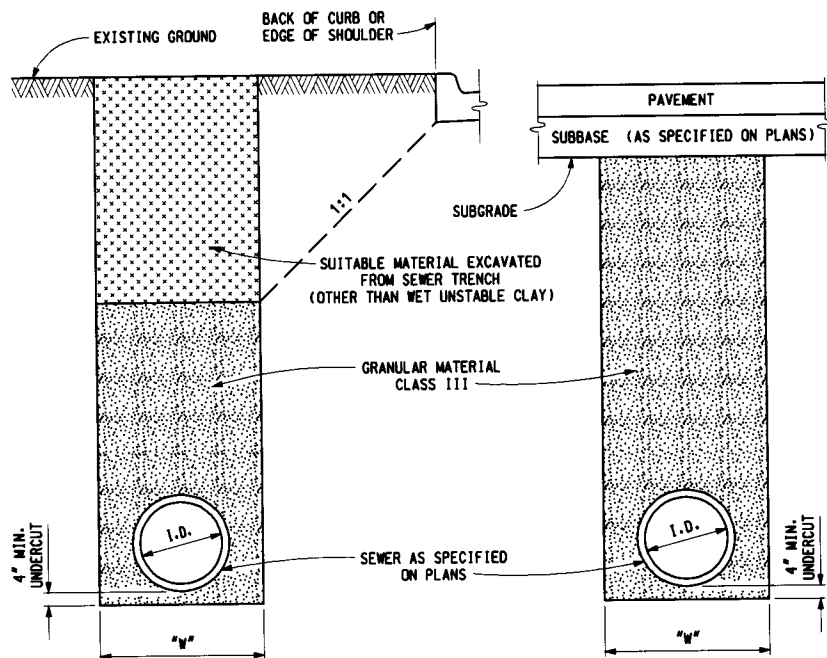
# APPENDIX A

## MDOT UTILITY TRENCH STANDARD DETAILS



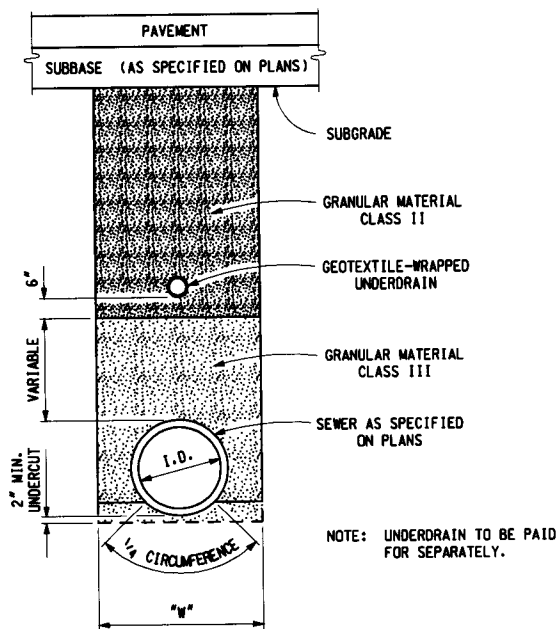
SEWER NOT UNDER ROADBED

NOTE: FOR "W" SEE NOTES ON SHEET 3



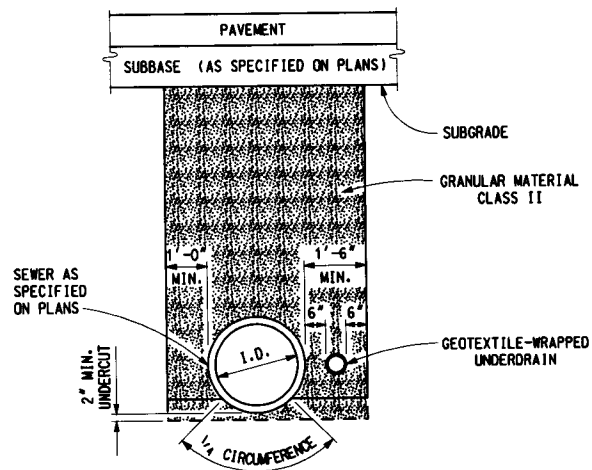
SEWER UNDER ROADBED OR WITHIN INFLUENCE OF ROADBED

B



SEWER WITH UNDERDRAIN UNDER ROADBED

C



SEWER WITH UNDERDRAIN UNDER ROADBED (FOR SHALLOW SEWERS)

D



ENGINEER OF CONSTRUCTION & TECHNOLOGY

ENGINEER - ROAD DESIGN

ENGINEER OF DESIGN

DEPARTMENT DIRECTOR

Gregory J. Rosine

BY: *Gregory J. Rosine*  
CHIEF ENGINEER/DEPUTY DIRECTOR  
BUREAU OF HIGHWAY TECHNICAL SERVICES

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

## UTILITY TRENCHES

PREPARED  
BY  
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

*Calvin Roberts*  
ENGINEER OF MAINTENANCE

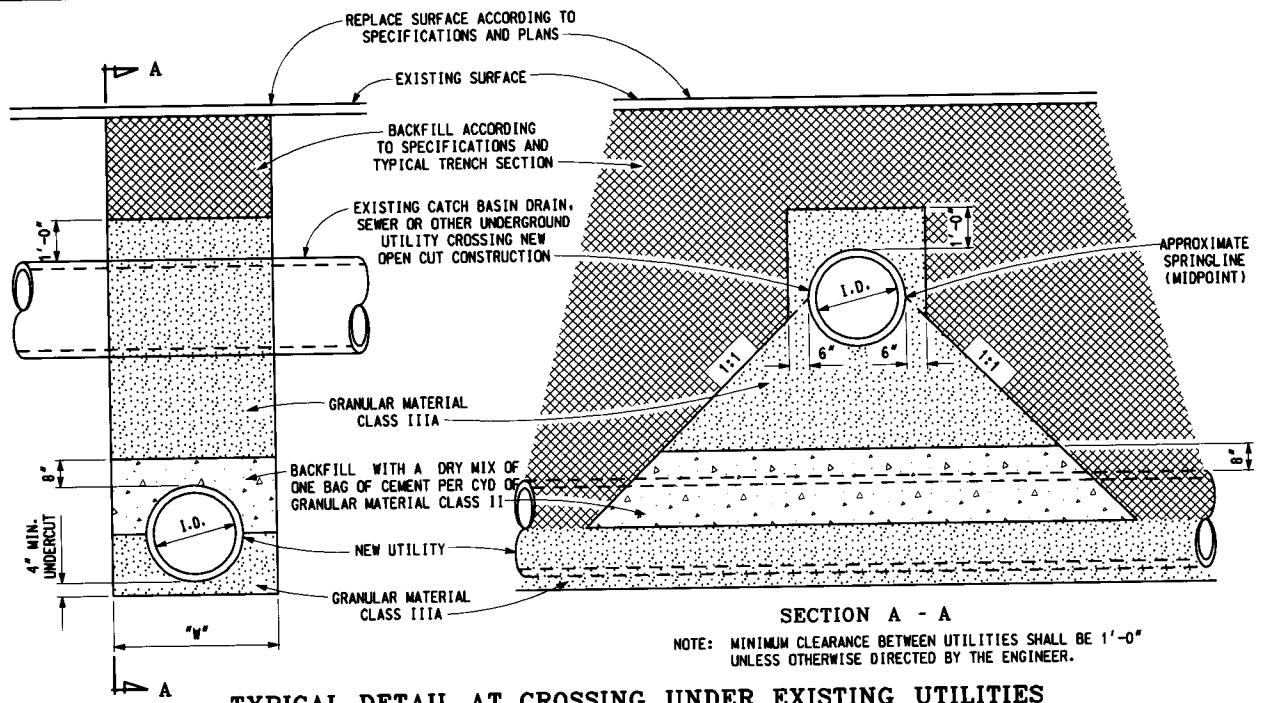
*John D. Roberts*  
ENGINEER OF TRAFFIC AND SAFETY

9-14-2001  
F.H.W.A. APPROVAL

2-28-2001  
PLAN DATE

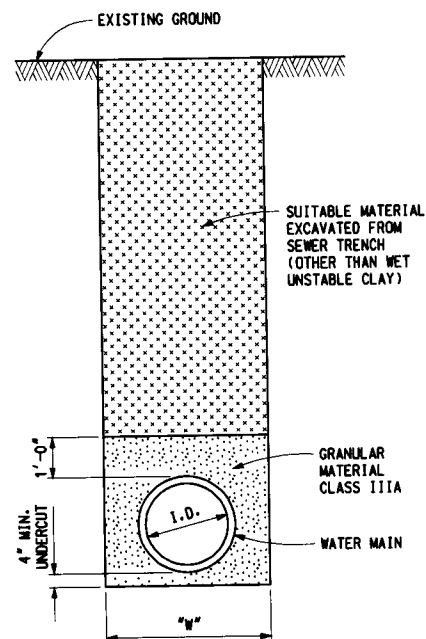
R-83-B

SHEET  
1 OF 3



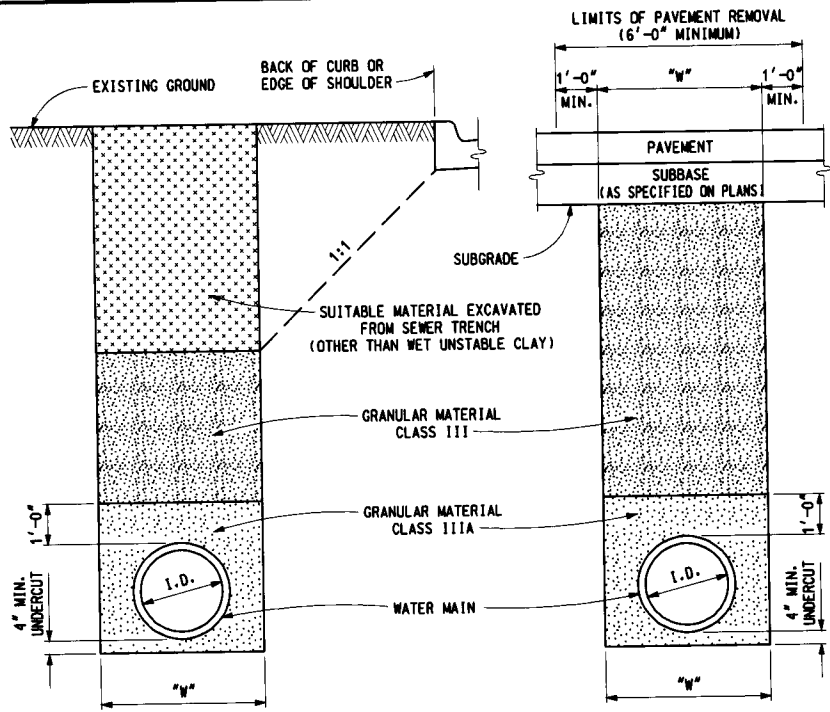
**TYPICAL DETAIL AT CROSSING UNDER EXISTING UTILITIES**  
 PAYMENT FOR THIS TRENCH DETAIL WILL BE INCLUDED WITH THE ADJACENT TRENCH DETAILS

E



**WATER MAINS  
 NOT UNDER ROADBED**

F



**WATER MAINS UNDER ROADBED  
 OR WITHIN INFLUENCE OF ROADBED**

G

MICHIGAN DEPARTMENT OF TRANSPORTATION  
 BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

**UTILITY TRENCHES**

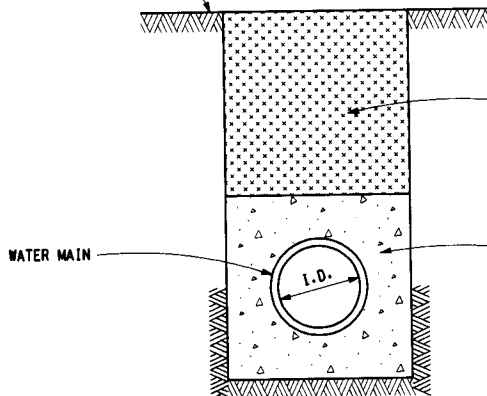
9-14-2001  
 F.H.W.A. APPROVAL

2-28-2001  
 PLAN DATE

**R-83-B**

SHEET  
 2 OF 3

EXISTING GROUND  
BOTTOM OF SUBBASE



BACKFILL REQUIREMENTS ARE SIMILAR TO  
REGULAR WATER MAIN TRENCH SECTIONS

REINFORCED  
CONCRETE  
ENCASEMENT

WATER MAIN

UNDISTURBED EARTH

NOTE:  
REINFORCEMENT SHALL BE AS SPECIFIED ON PLANS.

# REQUIRED ENCASEMENT SIZE FOR RESPECTIVE PIPE SIZES

DIAMETER OF PIPE	ENCASEMENT SIZE AND TRENCH WIDTH
6" - 12"	3'-0"
16"	3'-6"
24"	4'-6"
30"	5'-0"
36"	5'-6"
42"	6'-0"
48"	7'-0"
54"	7'-6"
60"	8'-0"
66"	8'-6"
72"	9'-0"

## WATER MAINS IN REINFORCED CONCRETE ENCASEMENT

H

### NOTES:

BEDDING UNDER THE UTILITY SHALL BE AS SPECIFIED AND THE UNDERCUT MATERIAL REPLACED WITH GRANULAR MATERIAL CLASS IIIA. BACKFILLING SHALL BE ACCORDING TO THE CURRENT STANDARD SPECIFICATION.

BACKFILL FOR UTILITY TRENCHES ABOVE GRANULAR MATERIAL CLASS IIIA SHALL BE PLACED AS FOLLOWS:

- GRANULAR MATERIAL, OF THE CLASS SPECIFIED ON DETAILS, SHALL BE USED TO BACKFILL TRENCHES UNDER THE ROADBED AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF ITS MAXIMUM UNIT WEIGHT.
- GRANULAR MATERIAL, OF THE CLASS SPECIFIED ON DETAILS, SHALL BE USED TO BACKFILL UTILITY TRENCHES OUTSIDE THE ROADBED BUT WITHIN THE 1:1 ZONE OF INFLUENCE SHOWN. IT WILL ALSO BE USED AS BACKFILL UNDER SIDEWALKS, SURFACED AREAS, AND MISCELLANEOUS STRUCTURES, AND COMPACTED TO NOT LESS THAN 95% OF ITS MAXIMUM UNIT WEIGHT.
- WHEN ACCEPTABLE, MATERIAL EXCAVATED FROM THE UTILITY TRENCHES SHALL BE USED TO BACKFILL UTILITY TRENCHES OUTSIDE THE LIMITS OF THE 1:1 ZONE OF INFLUENCE AND SHALL BE COMPACTED TO NOT LESS THAN 90% OF ITS MAXIMUM UNIT WEIGHT.

GRANULAR MATERIAL CLASS I, II, IIIA, OR IIIA MAY BE USED WHERE GRANULAR MATERIAL CLASS III IS SPECIFIED ON THE PLANS.

SUFFICIENT TRENCH WIDTH SHALL BE PROVIDED TO ALLOW FREE WORKING SPACE AND TO PERMIT COMPACTING THE BACKFILL AROUND THE PIPE.

THE FOLLOWING ARE MINIMUM TRENCH WIDTHS:

I.D. PIPE SIZE (INCHES)	LESS THAN 18		21	24	30	36
"W" TRENCH WIDTH (FEET)	3.0		3.5	4.0	5.0	6.0

I.D. PIPE SIZE (INCHES)	42	48	54	60	66	72
"W" TRENCH WIDTH (FEET)	7.0	8.0	9.5	10.0	10.5	11.0

I.D. PIPE SIZE (INCHES)	78	84	90	96	102	108
"W" TRENCH WIDTH (FEET)	11.5	12.0	12.5	13.0	13.5	14.0

ESTIMATED PAVEMENT REMOVAL WIDTH IS TO BE TRENCH WIDTH "W" PLUS 1'-0" EACH SIDE OF THE TRENCH (6'-0" MINIMUM).

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR

## UTILITY TRENCHES

9-14-2001  
F.H.W.A. APPROVAL

2-28-2001  
PLAN DATE

R-83-B

SHEET  
3 OF 3

# Memo

TO: Delta Township Board  
Delta Township

FROM: John C. Clark, Fire Chief  
Delta Township Fire Department

DATE: February 22, 2013

SUBJECT: Ambulance Bid Award

On February 8, 2013, the Charter Township of Delta opened bids for a two ambulances; one funded by the EVIP grant (awarded April 4, 2012) at approximately \$110,000.00 to support the LGRFA agreement, and one per the vehicle replacement program outlined and approved by the Township's CIP Committee.

Please note: the ambulance afforded by the EVIP grant was previously bid and awarded to Marque Ambulance (via Mercy Sales) but was been canceled due to several delivery delays; therefore it has been added to this purchase request.

The following bids were opened by the Township Clerk and the Township Finance Director:

- R&R/LifeLine Emergency Vehicles: \$187,973.00
- Halt Fire, Inc.: \$183,365.00
- Braun Custom Ambulances: \$204,099.00
- Mercy Sales Inc.: \$176,272.00
- Rolland Specialty Vehicles and Products, Inc.: \$192,072.00

After careful review of all bids submitted, including variations to the specifications and structural, electrical, and paint warranties, I offer the following motion:

"I move that the Board of Trustees of Delta Township accept the bid submitted by Halt Fire, Inc. for two PL Custom Titan 170 Type I ambulance modules on 2013 international Terra-Star chassis (this option has the standard PL Custom electrical system as an alternative to the V-Mux). The price for each of these units per published specifications, including clarifications, is \$183,365.00."

Thank you for your consideration and approval of this request.

# DELTA TOWNSHIP FIRE DEPARTMENT LANSING, MICHIGAN



## 2013 AMBULANCE BID SPECIFICATION QUOTATION / VARIANCES / CLARIFICATIONS

February 8, 2013

QUOTE		ITEM / DESCRIPTION	PRICE
		2014 LIFE LINE "HIGHLINER 172" SERIES TYPE AD 2014 NAVISTAR "TERRA STAR" CHASSIS MANUFACTURED IN COMPLIANCE WITH BID SPECIFICATIONS VARIANCES NOTED. DETAILED PRINTS AND WORK ORDER SHALL BE PROVIDED.	\$187,973.00
		VARIANCES / OPTIONS	
PAGE		ITEM / DESCRIPTION	
1	MITN	COD PAYMENT IS REQUIRED UPON COMPLETION AND ACCEPTANCE OF VEHICLE.	
2	2	INTER - AGENCY AGREEMENT PURCHASES: THIRD PARTY PURCHASERS MUST COMPLY WITH THE SPECIFICATION EXACTLY. CHASSIS AND VENDOR PRICE INCREASES SHALL BE IMPOSED UPON ANY FUTURE PURCHASES	
3	3	OEM BAILMENT POOL: LIFE LINE IS NOT A MEMBER. THIS REQUIREMENT IS NOT APPLICABLE; THE CHASSIS REQUESTED IS MANUFACTURED BY NAVISTAR CORPORATION, NOT FORD OR GENERAL MOTORS. NEITHER FORD OR GENERAL MOTORS CORPORATIONS WILL WARRANT THIS CHASSIS.	
4	3	AMD STANDARD: LIFE LINE COMPLIES WITH NFPA STANDARD 001- NOT BRAUN MANUFACTURING STANDARDS.	
5	4	DELIVERY PENALTY: \$100 PER CALENDAR DAY DELIVERY SHALL OCCUR WITHIN 120 CALENDAR DAYS AFTER RECEIPT OF FORMAL PURCHASE ORDER, NAVISTAR CHASSIS AND PURCHASER APPROVED PRINTS AND WORK ORDER.	
6	5	PROPOSAL TIME LIMIT: 45 DAYS; ANY VENDOR PRICE INCREASES THEREAFTER SHALL BE IMPOSED UPON PURCHASER.	
7	5	OPTION: TRAVEL AND INSPECTIONS [BEYOND 120 MILES]: AIRFARE <b>ADD TO BID QUOTATION \$1000.00 PER PERSON PER ROUND TRIP.</b> TOTAL: \$4000.00 FOR AIRFARE TRANSPORTATION	

8	5	TYPE I - AMBULANCE- "CHIEF" "CHIEF" REFERS TO A SPECIFIC MODEL NAME OF ONE SPECIFIC AMBULANCE MANUFACTURER. WE DO NOT BUILD "CHIEF" MODELS.
9	6	SPECIFICATION INTENT: LIFE LINE BIDS A 172" BODY, NOT 166", ESPECIALLY USING A MEDIUM DUTY CHASSIS
10	6	CHASSIS MODEL YEAR: 2014
11	6	CHASSIS PAINT: THIS CHASSIS SHALL BE PAINTED RED AT NAVISTAR, NOT THE AMBULANCE MANUFACTURER.
12	12	MOORYDE SUSPENSION SYSTEM: NO BID PER DELTA TOWNSHIP INSTRUCTIONS
13	13	CONSOLE: THIS IS MANUFACTURED WITH MARINE GRADE PLYWOOD THEN COVERED BY "VORTEX".
14	13	CHARGER: A DLS-45 SERIES CONVERTER / POWER SUPPLY SHALL BE INSTALLED.
15	14	TRANSPORTATION SAFETY TECHNOLOGY, FT. WAYNE, IN SUPPLIES THE LIFE LINE ELECTRICAL SYSTEM.
16	17	EXHAUST AIR SWITCH: 3-WAY HI/MEDIUM /LOW
17	20	ICC LIGHTS: WHELEN OS SERIES
18	22	MODULE BODY: EXTRUDED BEAM CORNERS 2" X 3" TRIPLE REINFORCED LOWER CRASH BEAMS AND VERTICAL BEAMS SURROUNDING SEATS HORIZONTAL ROOF BEAMS WITH INTERNAL DRIP RAILS 2" THICK FLOORS WITH BLOCK FOAM INSULATION 3" THICK "BANK VAULT" STYLE DOORS WITH BLOCK FOAM
19	23	DOOR HANDLES: "TRI-MARK"
20	23	INSULATION: 2" THICK BLOCK FOAM APPLIED TO ALL INTERIOR SURFACE WALLS, FLOOR AND CEILING
21	24	D1: OXYGEN COMPARTMENT NFPA 1917 REQUIRES THAT NO OTHER EQUIPMENT OTHER THAN THE OXYGEN TANK SHALL BE STORED IN THE DESIGNATED AREA. A WAIVER IS REQUIRED TO BE AUTHORIZED BY PURCHASER TO VOID THIS REQUIREMENT
22	24	
23	25	CURBSIDE DOOR IS HINGED
24	26	REAR STEP: DIAMOND PLATE SURFACE MATERIAL. GUSSETED ALUMINUM CORNER BRACES AND 4" FRAME SUPPORT BEAMS SHALL BE INSTALLED
25	26	STONE GUARDS: DIAMOND PLATE ALUMINUM
26	27	REAR KICK PLATE: DIAMOND PLATE ALUMINUM

- 27    27    CABINET: REAR ATTENDANT SEAT, ELECTRICAL APPLIANCES ONLY
- 28    28    CABINET, RIGHT WALL: NOTE, WE INSTALL LED LIGHTS IN THE CEILING , NOT FLUORESCENT  
LIGHTS BELOW CABINETS TO PRESERVE SPACE
- 29    28    INTERIOR CABINETS: MICA FINISHED MARINE GRADE PLYWOOD. STAINLESS STEEL WALL  
PROTECTORS. ALUMINUM CORNER JOINTS. ALUMINUM DRAWERS
- 30    28    COUNTERTOPS ARE DUPONT CORIA™
- 31    29    CEILING PANEL: HIGH GLOSS PVC  
DUCTED HVAC IS INSTALLED CENTERLINE IN THE CEILING OF THE BODY FOR MAXIMUM
- 32    31    VENTILATION OF CONDITIONED AIR ANN SERVICE ACCESS
- 33    31    SQUAD BENCH: 3/4" MICA FINISHED PLYWOOD  
FLOOR: 2" THICK ALUMINUM INCLUDES 2" X 2" BEAMS TRANSVERSE EVERY 12". 2" BLOCK  
FOAM INSTALLED BETWEEN THE BEAMS FOR SOUND CONTROL. 1/2" MARINE GRADE
- 34    33    PLYWOOD SUBFLOOR INSTALLED BELOW THE LON COIN
- 35    34    DOOR PANELS: MICA FINISHED ALUMINUM, NO UPHOLSTERY
- 36    34    DUPONT™ "ELITE" PAINT WITH DUPONT™ WARRANTY

AL D'AGOSTINO  
SALES MANAGER  
R & R FIRE TRUCK REPAIR, INC.





# Halt Fire, Inc.



## Delta Twp. Fire Department Ambulance Proposal

Mr. John Clark, Fire Chief

Delta Township Fire Department

7710 W. Saginaw

Lansing, MI 48917

February 8, 2013

PL Custom Emergency Vehicles, Inc. and Halt Fire, Inc. are please to provide two proposals for your department to review.

**Option 1:** One (1) PL Custom Titan 170 Type I ambulance module on a 2013 International Terra-Star chassis. **The price for this ambulance, as requested in the published specification and shown in the provided proposal text, clarifications and drawings is \$190,260.00.**

**Option 2:** One (1) PL Custom Titan 170 Type I ambulance module on a 2013 International Terra-Star chassis. This option has the standard PL Custom electrical system as an alternative to V-Mux. **The price for this ambulance, as requested in the published specification and shown in the provided proposal text, clarifications and drawings is \$183,365.00.**

Bid price valid for 60 days from bid opening date. Multiple vehicle discounts apply and are available upon request.

Current build time for PL Custom Emergency Vehicles is 150 days from receipt of order and receipt of chassis for this bid.

Thank you for the opportunity to provide you this proposal for your consideration! If you should have any questions please contact me at any time, I will be more than happy to clarify or review this proposal with you and your committee.

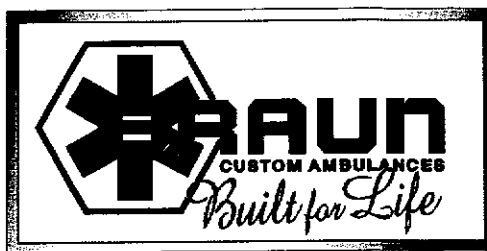
Respectfully Submitted,

Edwin L. Miller

Sales Representative

Halt Fire, Inc.

PL Custom Emergency Vehicles, Inc.



Charter Township of Delta  
Attention: Clerks Office  
7710 W. Saginaw  
Lansing MI 48917

February 7, 2013

Dear Chief Clark,

Thank you for considering Braun Industries, Inc. as your next ambulance provider. We are pleased to provide the following proposal for your review and consideration.

**Reference:**

- 2013 Braun Chief XL Type I on a 2014 International Terra Star Chassis

**PROPOSAL:**

**UNIT BASE PRICE WITH OPTIONS:** **\$ 204,099.00**

**INSPECTION TRIPS (2 TRIPS, 2 PEOPLE):** **\$ 1,500.00**

Air fare not included

**PERFORMANCE BOND:** **\$ 1,919.00**

**OPTIONAL ITEMS:**

**EXTENDED WARRANTY** **\$ 21,000.00 / Unit**

**VEHICLE COMPLETION:**

We can have the first unit delivered to you within 210 calendar days from receipt of order and chassis.

**TERMS:** U.S. Currency Due Upon Delivery FOB: Van Wert OH

**SUMMATION:**

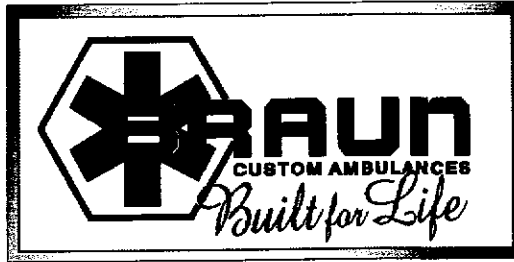
Braun Industries, Inc. has been owned and operated by the founding family for the past Forty years and is recognized as the world quality leader. At Braun, there are no short cuts or compromises in quality.

By investing in a Braun Ambulance, you will see savings in operation, downtime, and maintenance. Should you have any questions, comments, or other requests, please contact me at our Ohio Manufacturing Facility. Thank you for the opportunity to serve your department. We sincerely look forward to receiving your order.

Respectfully Submitted,

*Eric Wilcox*

Regional Sales Manager  
Braun Industries, Inc.



OPTION: EXTENDED MANUFACTURER WARRANTY \$21,000.00

- A. Structural Module Warranty - Limited Life Time
- B. Ambulance Conversion Warranty - 2 Years/30,000 Miles
- C. Electrical Warranty (Multiplex-based systems) - 10 Years/ 100,000 Miles
- D. PPG Paint Warranty - This warranty covers the areas of the ambulance body finished with specified PPG products for a period of 10 years or 100,000 miles whichever occurs first, from the date the vehicle is delivered to the owner.

# ***mercysales*** ***incorporated***

---

February 8, 2012

Delta Township Fire Department

**Re: Quote for One Type I Medium Duty Ambulance**

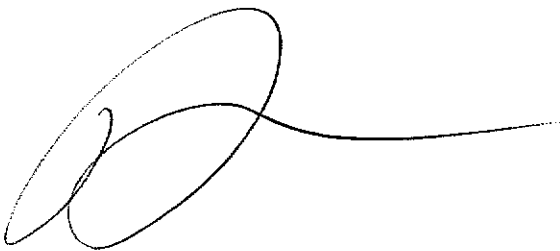
Mr. John Clark

Mercy Sales, Inc. is delighted to provide Delta Township Fire Department with a quote for one (1) Type I Medium Duty Ambulance. The Quote is presented to you under the Osage brand.

Please find attached the complete listing of specifications as per your instructions.

**The total price of this unit delivered to Delta Township Fire Department is:                      \$176,272.00**

Thank you for the opportunity to provide you a quote for your new ambulance. If you should have any questions or require additional information, please don't hesitate to call me at (989) 798-4247 or email me at [athompson@mercysales.com](mailto:athompson@mercysales.com).



Anthony Thompson

Mercy Sales, Inc. /Sales Representative

## Clarifications and Exceptions

### Page 4

Paragraph 4- Delivery Due to current business is no more than 210 days from receipt of chassis and approved order

### Page 13

Paragraph 3- console is wood sprayed with Zolatone

Paragraph 6- camera housing is surface mount

### Page 18

Paragraph 1- electrical warranty is 7 years/ 100,000 miles

Paint warranty is 5 years/ 100,000 miles

### Page 23

Paragraph 5- R-29 Reflectics Insulation Throughout Module

### Page 27

Paragraph 8- Refer to prints for bulkhead specifications

### Page 28

Paragraphs 3,5,6 - Refer to standard color option choices below

#### **Laminate Color:**

(Standard Colors: Dove Grey, Grey Glace, Grey Nebula)

#### **Vinyl Color:**

(Standard Colors: Cobalt Blue, Wedge Wood Blue, Ash Gray, Claret Red, Desert Rose Red)

#### **Lonplate Color:**

#176 Pewter, #424 Gunmetal, #165 Sapphire

Paragraph 2- Bid is with standard wood cabinetry. Aluminum cabinets available for additional \$3500.00

# R.S.V.P.

Rolland Specialty Vehicles and Products Inc.  
P.O. Box 6888 Toledo, Ohio 43612  
Phone: 419/269-RSVP (7787) Fax: 419/269-1977

2-8-13

Delta Township  
Clerk's Office  
7710 W. Saginaw Hwy.  
Lansing, MI 48917

Dear Township Clerk,

RSVP and AEV TraumaHawk, kindly submit this proposal for your consideration. It has the latest, state of the art, features for safety, engineering and structural integrity.

Our bid is to meet or exceed your detailed specifications, within manufacturer's tolerances

(1) 2013 AEV TraumaHawk Type I International TerraStar	\$192,072.00
--	--------------

This bid includes the cost of a performance bond and is itemized for your convenience.

Terms:

Price firm 60 days

Delivery 120 to 150 days from receipt of chassis

COD upon inspection and orientation

Thank you for the opportunity to provide Delta Township, the finest ambulance in the industry today.

Sincerely,



John Arnos, Pres.  
RSVP, Inc.  
800-826-3911

## **Delta Township Fire Department**

### **Explanation of Exceptions**

20-SP-0333 Page 12 40-00-0100 Page 28	MORRYDE Suspension	AEV requires the Air-Ride suspension system on International Chassis in order to meet KKK-A-1822 requirements
90-10-0002 Page 18	Paint Warranty	Paint has 7 year/70,000 mile warranty
39-00-0001 Page 22	Module Body Construction	We exceed specified body construction techniques and provide a 20 year body warranty. Our body is the industry leader in crash testing results.
40-00-0070 Page 22	Exterior Door Handles	TriMark commercial grade free-floating handles.
50-60-0030 Page 25	Assist Handles	AEV assist handles are not rubber coated, in order to meet antimicrobial standards
50-01-0111 Page 28	Interior Cabinet Construction	This specification response has Mica covered ¾" A/A grade 7-ply plywood. We offer aluminum cabinetry at additional charge.
50-60-0391 Page 29	Headliner- Patient Compartment	Mica covered wood for ease of cleaning.
56-60-0420 Page 31	Ducted Heat/AC	AEV offers full tapered ducting throughout the patient compartment, not only on the Curbside



MEMO

TO: Township Board  
Delta Township

FROM: Richard Watkins  
Township Manager

Jeff Anderson  
Finance Director



DATE: February 28, 2013

SUBJECT: Resolution to publish a notice of intent to issue bonds

Public Act 34 requires a “notice of intent to issue Bonds” be published 45 days prior to a Municipality issuing municipal securities. Based on the upcoming water main replacement projects, we feel there will most likely be a need to issue bonds to finance the cost of these projects. These water main projects are scheduled to take place during the 2013 and 2014 construction seasons. Once the 45 day referendum period is complete without protest, the Township can issue the bonds. Publishing this notice does *not* mandate the Township issue the bonds. During the 45 day referendum period, it is our intent to work with our Municipal Finance Advisors to create a bond issuance strategy that works best for these upcoming projects.

I offer the following resolution for your consideration:

“I move the Delta Township Board adopt the Notice of Intent Resolution for the issuance of Capital Improvement Bonds for Water System Improvements.”

Thank you.

**Charter Township of Delta  
County of Eaton, State of Michigan**

**NOTICE OF INTENT RESOLUTION  
GENERAL OBLIGATION CAPITAL IMPROVEMENT BONDS  
WATER MAIN REPLACEMENT**

WHEREAS, under the provisions of Section 517 of Act No. 34, Public Acts of Michigan, 2001, as amended (“Act 34”) a township may issue municipal securities to pay the cost of any capital improvement items within the limitations provided by law; and

WHEREAS, the Charter Township of Delta, County of Eaton, State of Michigan (the “Township”) has determined that it is necessary for the public health, safety and welfare of the Township to replace water mains throughout the Township together with any appurtenances and attachments thereto and any related site improvements (the “Capital Improvements”); and

WHEREAS, the issuance by the Township of bonds under Section 517 of Act 34 in an amount not to exceed Six Million Dollars (\$6,000,000) (the “Bonds”) for the purpose of financing costs of acquisition and construction of the Capital Improvements appears to be the most practical means to that end; and

WHEREAS, the Township intends to pay the principal and interest of the Bonds from the revenues received by the Township from the operations of the water supply system; and

WHEREAS, Section 517 of Act 34 requires that the aggregate outstanding balance of municipal securities issued thereunder by a township not exceed 5% of the state equalized valuation of the property assessed in that township, and after the issuance of the Bonds, the outstanding balance of all municipal securities issued under Section 517 of Act 34 by the Township will not exceed this limit; and

WHEREAS, a notice of intent to issue the Bonds must be published in order to comply with the requirements of Section 517 of Act 34; and

WHEREAS, the Internal Revenue Service has issued Treasury Regulation § 1.150-2 pursuant to the Internal Revenue Code of 1986, as amended, governing proceeds of debt used for reimbursement, pursuant to which the Township must declare official intent to reimburse expenditures with proceeds of such debt before making the expenditures.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Township Clerk is hereby authorized and directed to publish a notice of intent to issue the Bonds in the *Delta-Waverly News Herald* and the *Grand Ledge Independent*, newspapers of general circulation in the Township.

2. The notice of intent shall be published as a one-quarter (1/4) page display advertisement as required by Section 517 of Act 34 in substantially the following form:

NOTICE TO ELECTORS AND TAXPAYERS OF THE  
CHARTER TOWNSHIP OF DELTA  
OF INTENT TO ISSUE BONDS SECURED BY THE TAXING  
POWER OF THE TOWNSHIP AND RIGHT OF REFERENDUM THEREON

PLEASE TAKE NOTICE that the Township Board of Trustees of the Charter Township of Delta, County of Eaton, Michigan, intends to issue and sell general obligation capital improvement bonds pursuant to Act 34, Public Acts of Michigan, 2001, as amended, in an amount not to exceed Six Million Dollars (\$6,000,000), for the purpose of paying all or part of the cost of replacing water mains throughout the Township together with any appurtenances and attachments thereto and any related site improvements. The bonds may be issued in one or more series and may be combined with bonds for other purposes as shall be determined by the Township Board of Trustees. Each series of the bonds will mature in annual installments not to exceed thirty (30) in number, with interest on the unpaid balance from time to time remaining outstanding on the bonds to be payable at rates to be determined at sale of the bonds.

SOURCE OF PAYMENT OF BONDS

The Township intends to pay the principal and interest of the bonds from the revenues received by the Township from the operations of the water supply system. The revenues will consist of rates and charges billed to the users of the water supply system. The rates and charges may from time to time be revised to provide sufficient revenues to provide for the expenses of operating and maintaining the water supply system, to pay the principal of and interest on the bonds and to pay other obligations of the water supply system and to provide reserves therefor. **In case of the insufficiency of the water supply system revenues, the principal of and interest on the bonds shall be payable from the general funds of the Township lawfully available for such purposes including property taxes levied within applicable charter, statutory and constitutional limitations.**

RIGHT OF REFERENDUM

THE BONDS WILL BE ISSUED WITHOUT A VOTE OF THE ELECTORS UNLESS A VALID PETITION REQUESTING SUCH A VOTE SIGNED BY NOT LESS THAN 10% OR 15,000 OF THE REGISTERED ELECTORS, WHICHEVER IS LESS, RESIDING WITHIN THE TOWNSHIP, IS FILED WITH THE TOWNSHIP CLERK WITHIN FORTY-FIVE (45) DAYS AFTER PUBLICATION OF THIS NOTICE. IF SUCH PETITION IS FILED, THE BONDS MAY NOT BE ISSUED WITHOUT AN APPROVING VOTE OF A MAJORITY OF THE QUALIFIED ELECTORS OF THE TOWNSHIP VOTING THEREON.

THIS NOTICE is given pursuant to the requirements of Section 517, Act 34, Public Acts of Michigan, 2001, as amended. Additional information can be obtained from the Township Manager's office.

Mary R. Clark, Township Clerk  
Charter Township of Delta

3. The Township Board of Trustees does hereby determine that the foregoing form of Notice of Intent to Issue Bonds, and the manner of publication directed, is adequate notice to the electors of the Township and is the method best calculated to give them notice of the Township's intent to issue the Bonds, the purpose of the Bonds, the security for the Bonds, and the right of referendum of the electors with respect thereto, the newspapers named for publication are hereby determined to reach the largest number of persons to whom the notice is directed, and the newspapers comply with the requirements of Act No. 247, Public Acts of Michigan, 1963.

4. The Township makes the following declarations for the purpose of complying with the reimbursement rules of Treas. Reg. § 1.150-2 pursuant to the Internal Revenue Code of 1986, as amended:

- (a) The Township reasonably expects to reimburse itself with proceeds of the Bonds for certain costs of the Capital Improvements which will be paid from the general funds of the Township.
- (b) The expenditures which the Township will reimburse from proceeds of the Bonds will be expenditures made to pay certain costs of the Capital Improvements which were or will be paid subsequent to sixty (60) days prior to the date hereof or which will be paid prior to the issuance of the debt from the general funds or capital fund of the Township or the water system enterprise fund.
- (c) The maximum principal amount of debt expected to be issued for the Capital Improvements, including issuance costs, is \$6,000,000, which debt may be issued in one or more series and/or together with debt for other purposes.
- (d) A reimbursement allocation of the capital expenditures described above with the proceeds of the Bonds will occur not later than 18 months after the later of (i) the date on which the expenditure is paid, or (ii) the date the Capital Improvements are placed in service or abandoned, but in no event more than three (3) years after the original expenditure is paid. A reimbursement allocation is an allocation in writing that evidences the Township's use of the proceeds of the Bonds to reimburse the Township for a capital expenditure made pursuant to this resolution.
- (e) The expenditures for the Capital Improvements are "capital expenditures" as defined in Treas. Reg. § 1.150-1(b), which are any costs of a type which are properly chargeable to a capital account (or would be so chargeable with a proper election or with the application of the definition of "placed in service" under Treas. Reg. § 1.150-2(c)) under general Federal income tax principles (as determined at the time the expenditure is paid).

- (f) No proceeds of the borrowing paid to the Township in reimbursement pursuant to this Resolution will be used in a manner described in Treas. Reg. § 1.150-2(h) with respect to abusive uses of such proceeds, including, but not limited to, using funds corresponding to the proceeds of the borrowing in a manner that results in the creation of replacement proceeds (within Treas. Reg. § 1.148-1) within one year of the reimbursement allocation described in paragraph (d) above

5. Bendzinski & Co., Municipal Finance Advisors, is hereby retained to act as Registered Municipal Advisor to the Township for the Bonds.

6. The Township recognizes that Miller, Canfield, Paddock and Stone, P.L.C., has represented from time to time, and currently represents, financial institutions and other potential participants in the bond financing process for unrelated projects, any of which might offer to purchase the Bonds. The Township appoints Miller, Canfield, Paddock and Stone, P.L.C. as bond counsel for the Bonds, notwithstanding the potential concurrent representation of any such bidder regarding any unrelated matter.

7. All resolutions and parts of resolutions insofar as they conflict with the provisions of this resolution are hereby rescinded.

I hereby certify that the foregoing is a true and complete copy of a resolution duly adopted by the Township Board of Trustees of the Charter Township of Delta, County of Eaton, State of Michigan, at a Regular meeting held on Monday, March 4, 2013 at 6:00 o'clock p.m., Eastern Time, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act 267.

I further certify that the following Members were present at said meeting: \_\_\_\_\_

\_\_\_\_\_ and that the following Members were absent:  
\_\_\_\_\_.

I further certify that Member \_\_\_\_\_ moved for adoption of said resolution and that Member \_\_\_\_\_ supported said motion.

I further certify that the following Members voted for adoption of said resolution:

\_\_\_\_\_ and that the following Members voted against adoption of said resolution: \_\_\_\_\_.

\_\_\_\_\_  
Township Clerk

# Vending Ordinance Amendments

Delta Township Clerk's Office &  
Community Development Department  
March 2013

# Chronology

- **September 10, 2012:** During a Fireworks discussion at a Township Board meeting, Clerk Clark identified various issues pertaining to the Vending Ordinance, including fees, which need attention.
- **October 1, 2012:** The Township Board reviewed & discussed proposed amendments to the Vending Ordinance.



# Definitions

- **Vending**: The act of offering merchandise for sale from a fixed place, not within a building, from a vehicle or from a fixed place in a tent or similar shelter, and the act of offering merchandise for sale or by sample by going from door to door. Does not include merchants offering merchandise for sale upon commercial premises permanently occupied by them nor does it include regular route delivery salespersons.

## Proposed Amendment #1: Sections 42-1 & 42-4 (j) Definition of “Special Event” & Associated Text

- “Special Event” refers to “appropriate permission from the Township” but doesn’t provide documentation as to what constitutes “appropriate permission”
- Township officials have never authorized a “special event”
- Only reference to “special event” is section 42-4 (j), Rules of Conduct, which prohibits unlicensed vendors from vending without a license which is covered elsewhere. Paragraph j also prohibits the use of tents which are permitted elsewhere in the ordinance.

## Proposed Amendment #2: Section 42-2 (b) Violations & Penalties

- Reduces the maximum clean-up time for vending sites from 14 to 7 days
- Designates the Code Enforcement Officer rather than the Clerk to clean-up vending sites
- Revises the language mandating that the property owner reimburse the Township for clean-up costs

# Proposed Amendment #3: Section 42-2 (q)

## Rules of Conduct

### CHARTER TOWNSHIP OF DELTA

7710 West Saginaw Highway  
Lansing MI 48917  
517/323-8500

**LICENSED VENDOR: TRACY L. RUIZ**



PERMIT NO: 2013-  
VALID: May – June, 2013 - 9am – 9pm

### LICENSED VENDOR

This license certifies that *Aaron Rozanski* of *G.R.W.S.A.* is a licensed vendor in the **Charter Township of Delta** pursuant to and in compliance with the Delta Township Vending Ordinance. The vendor named above, has agreed to comply with the regulations and penalties as defined by the Ordinance. If you have questions or complaints, please call the Clerk's Office at 323-8500.

---

**MARY R. CLARK, TOWNSHIP CLERK**

## Proposed Amendment #4: Section 42-35 (12) Application

- Sheriff's Dept. has noted that photo ID's could assist them in monitoring vending in the field
- Residents may feel more secure if a door to door vendor has a photo ID in a lanyard around their neck
- Clerk's Office presently prepares lanyard ID but without photos that can be "shared" on site
- Section 42-35 (1) deletes the requirement for a social security number

## Proposed Amendment #5: Section 42-34 (c)

### Exceptions from license requirements

- New text exempts: “Persons involved in a vending activity representing a school, religious organization or charitable organization which is so classified for federal internal revenue purposes”.
- Vending by schools, churches & charities hasn’t caused problems in the past & exempting these individuals would address the issue of vending by minors not presently addressed
- See staff report as to how seven other municipalities address vending by minors & non-profits

Proposed Amendment #6: Section 42-36 (d)  
Investigation of Applicant

- Delete the requirement that the Clerk take “before” & “after” photos of vending sites

Proposed Amendment #7: Section 42-38 (2)  
Exemptions from the license fee requirements

- Deletion of the text mandating that political fund-raising & membership drives obtain a vending license because they do meet the definition of “vending”



# Vending License Application



## DELTA TOWNSHIP VENDING LICENSE APPLICATION

### APPLICANT INFORMATION:

NAME: \_\_\_\_\_  
(Last) (First) (Middle)  
DATE OF BIRTH: \_\_\_\_\_  
DRIVER'S LICENSE NO.: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
(Street) (City) (Zip)  
VEHICLE DESCRIPTION: \_\_\_\_\_  
(Make) (Model) (Year)  
LICENSE PLATE NO.: \_\_\_\_\_ HOME PHONE: \_\_\_\_\_  
WORK PHONE: \_\_\_\_\_ CELL PHONE: \_\_\_\_\_  
E-MAIL: \_\_\_\_\_

- APPLICANT MUST SUBMIT A LEGIBLE PHOTOCOPY OF THEIR DRIVERS LICENSE OR STATE IDENTIFICATION CARD.
- APPLICANT MUST SUBMIT A PASSPORT QUALITY PHOTO OF THEMSELVES.

### APPLICANT'S BACKGROUND INFORMATION:

Have you ever had any occupational license revoked, suspended, or denied by any other municipal authority: If Yes, what is the name of the municipality and what were the circumstances of this action: \_\_\_\_\_

Have you ever operated as a vendor within Delta Township before: \_\_\_\_\_ If yes, were you issued a license or permit; where was your business located; and what did you sell? \_\_\_\_\_

### APPLICANT CERTIFICATION:

I certify as applicant for the Vending License that all statements and information provided in this application are true, complete and correct, to the best of my knowledge and belief, and are made in good faith. I further acknowledge that the vendor, proprietor, agents and employees will be held responsible for any violations of the Delta Township Vending Ordinance which may result in the issuance of a ticket violation to the vendor.

\_\_\_\_\_  
SIGNATURE OF APPLICANT

\_\_\_\_\_  
DATE

\*\*\*\*\*

# Vending License

## CHARTER TOWNSHIP OF DELTA

7710 WEST SAGINAW HIGHWAY  
LANSING, MICHIGAN 48917  
(517)323-8500



## LICENSED VENDOR

This license certifies that **Jacqueline Murphy, Amanda W. Nsheiwat & Donald Mock of USA Fireworks** are licensed vendors within the Charter Township of Delta pursuant to and in compliance with the Delta Township Vending Ordinance. The vendor(s) named on this license have agreed to comply with all the regulations and penalties as defined by the Delta Township Code of Ordinances and is authorized to sell **fireworks in the parking lot of 6433 W. Saginaw & 416-647 Marketplace Blvd.** The vendors, proprietors, agents and employees will be held responsible for any violations of the Delta Township Vending Ordinance which may result in the issuance of a ticket violation to the vendor. If you have any questions or complaints regarding the vendor or company named on this license, please contact the Clerk's Office at 323-8500.

\_\_\_\_\_  
Delta Township Clerk

\_\_\_\_\_  
Date

Permit No. **2012-03 (Revised 6/27/12)**

Valid: **June 22 – July 6, 2012**  
**9:00 a.m. - 9:00 p.m.**

# Vending License Application Fees

- Section 42-36 mandates the Clerk perform a background investigation of vending employees
- The Michigan State Police now charge \$10 per background check
- Some vendors (fireworks & door to door sales) submit 10+ employee names to the Clerk
- The Clerk recommends that the fee schedule be amended to stipulate that 5 employee background checks be covered by the “basic” fee but vending activities with 6 or more employees would pay \$10/employee for additional background checks

# Final Notes

- The amendments were reviewed & approved by Township attorney Dave Revore
- Lt. Campbell & Manager Watkins were consulted during the drafting of the amendments
- Hope to have amendments adopted before summer door to door vending & firework sales

February 20, 2013

To: Township Board, Delta Charter Township

From: Mary Clark, Township Clerk  
Mark Graham, Community Development Department

Subject: Vending Ordinance Amendments

For the past several months Township staff have been reviewing the Township's Vending Ordinance which has resulted in the drafting of a number of amendments to the Ordinance. The Township Board has previously discussed the proposed amendments at their October 1, 2012 meeting (see attached minutes) and staff has followed up with further research & revisions. A January 3, 2013 letter from Township Attorney David Revore regarding the amendments will be provided to the Township Board under separate cover.

The existing Vending Ordinance is available for review as chapter 42 in the Code of Ordinances on the Township's website. The following discussion identifies the various sections of the Vending Ordinance which are proposed to be amended. ~~Strikeouts~~ have been used to highlight the text to be deleted and **bold** type has been used for the new text.

#### **Section 42-1 Definitions**

~~Special event means an organized activity, held on public property, specific to an identifiable place, occurring for a limited period of time, and for which appropriate permission has been obtained from the township.~~

#### **Section 42-4 Rules of Conduct**

~~(j) — The display of goods, merchandise, vehicles, services or other items permitted by this article are prohibited upon any public property located within the township, except during a special event in and around the location of the special event, or within the limits of the public road right of way of any street or highway located within the township. Tents, canopies and other similar shelters relating to the vending activity are also prohibited upon any public property located within the township, except during a special event in and around the location of the special event, or within the limits of the public road right of way of any street or highway located within the township.~~

#### **Staff Comments**

1. Staff recommends that the above sections be deleted from the Vending Ordinance for the following reasons:

- a. The definition of "Special Event" refers to "appropriate permission from the Township" but the ordinance doesn't provide any specifics as to what constitutes "appropriate permission".
- b. Staff couldn't find any record of "Special Events" which had been authorized by the Township Board or Township officials in the past.
- c. Other than the definition of "Special Event", there is only one other reference to "Special Event" in the ordinance being section 42-4 (j) (Rules of Conduct) which prohibits unlicensed vendors from displaying goods & merchandise absent a vending license. In the opinion of staff, paragraph j is unnecessary because it is repetitive of section 42-33 of the Ordinance makes it very clear that vendors are first required to obtain a vending license unless they are classified as an "exception" as per section 42-34.
- d. Paragraph j is contradictory in that it prohibits the use of tents & canopies related to vending activities but paragraphs l & m permit the use of tents & canopies.

#### **Section 42-1 Definitions**

Vendor means any person, **including, but not limited to, the vending proprietor, agent, and employee**, engaged in the act of vending as defined herein. For the purposes of this article, the terms "canvasser", "drummer", "hawker", "huckster", "itinerant merchant", "itinerant vendor", "peddler", "solicitor" and "transient merchant" shall be included as persons herein defined as vendors.

#### **Staff Comments**

1. The Township attorney has recommended that the definition of vendor be revised as noted above.

#### **Section 42-2 Violations & Penalties**

(b) The Township shall hold the legal property owner responsible for the cleanup and/or repair of any property within the township due to debris or damage caused by the vending activity. The property owner shall be notified by certified mail of the township's concerns regarding the cleanup and/or repair of any property due to a vending activity, and shall be given ~~14~~ **7** days to clean up and/or repair the property to its original condition. ~~as documented in the photographs kept on file by the clerk.~~ If the ~~clerk~~ **code enforcement officer or his/her designee** determines that sufficient cleanup and/or repair has not commenced within the allotted time, the ~~clerk~~ **code enforcement officer or his/her designee** shall cause the cleanup and/or repair of the property to commence. ~~and shall pay for the cost of same out of the township's contingency fund.~~ The property owner **shall reimburse the Township be billed** for the cost of the cleanup and/or repair **and any other out of pocket costs incurred by the Township, including any attorney fees and/or court costs incurred to enforce this article.** ~~and the property owner shall be billed accordingly.~~ The township may use any **lawful means necessary available** to recover **from the property owner the costs of the cleanup and/or repair of the property, including without limitation, any court costs and attorney fees to enforce this article.** ~~from the property owner.~~

- (c) **The property owner and vendor shall be responsible for violations of the provisions of this article.**

Staff Comments

1. The proposed amendments would designate the Code Enforcement Officer, rather than the Township Clerk, as responsible for the clean-up of vending sites, the clean up period would be reduced from 14 to 7 days, the reference to a contingency fund would be deleted since such a fund doesn't exist, and the word "lawful" was inserted in the last sentence to soften the language pertaining to cost recovery. The reference to photographs kept on file by the Clerk has also been deleted because the Clerk's Office doesn't take "before & after" photos of vending sites.
2. The Township Attorney has recommended that references be made to reimbursement for "out of pocket costs", attorney fees and court costs.

**Section 42-4. Rules of Conduct**

- (n) The use of any temporary structure, building, stand, booth, trailer or similar structure shall be ~~prohibited as set forth within~~ **in compliance with** the township zoning ordinance.

Staff Comments

1. The use of temporary structures, buildings, stands, booths & trailers for vending activities is not prohibited by the zoning ordinance. Possibly the word "permitted" was intended to be used rather than "prohibited".

**Sec. 42-4. Rules of Conduct**

- (q) **Anyone participating in a licensed vending activity shall at all times wear the photo ID issued by the Township Clerk.**

Staff Comments

1. Section 42-35 below would mandate vendors provide a photo ID.

**Sec. 42-34 Exceptions from license requirement.**

Persons identified under this section shall not be required to obtain a vending license. ~~under the terms of this article.~~ In addition, all fees associated with the granting of such licenses shall also be waived. ~~It is expected that persons~~ **excepted below** ~~operating in the capacities listed in subsections (b) of this section shall respect the terms of this article in good faith and~~ shall otherwise comply with the **applicable** regulations. ~~outlined herein.~~

- (a) ~~No vending license shall be required for those~~ Persons operating yard sales, garage sales, bake sales or other similar types of activities from their own residentially zoned property, or from property on which they currently legally reside. These activities ~~must~~ **are intended to**

be temporary in nature ~~so as to~~ **and must** to comply with all applicable township ordinances.

- (b) ~~No vending license shall be required to sell~~ **Persons selling** produce on the same property on which it was grown. An activity permitted by this subsection must comply with all other applicable township ordinances.
- (c) **Persons involved in a vending activity representing a school, religious organization or charitable organization which is so classified for federal internal revenue purposes.**
- (d) ~~No vending license shall be required for~~ **Persons operating a** regular delivery route, not including ice cream peddlers and similar vendors.
- (e) ~~No vending license shall be required for Licensed~~ **Persons operating a** food catering truck(s) that ~~serve visit multiple private~~ commercial and/or industrial properties. ~~on a daily basis and which remain at each property for no more than 30 minutes on any day. For purposes of this section, the term "multiple" means at least three.~~

#### Staff Comments

1. Paragraph C above exempts schools and religious & charitable organizations from the licensing requirement. These types of vending activities haven't caused problems in the past. Exempting these types of vending would also address the issue of vending by minors. Staff reviewed the vending ordinances of the following communities regarding issues pertaining to vending by minors & non-profits:
  - City of Lansing: Solicitation by Minors. "No person under 14 years of age shall, and no person shall allow, permit, direct or encourage any person under 14 years of age to, go from house to house or from place to place within the City for the purpose of soliciting charitable contributions after sunset, unless such child is accompanied by his or her parent or adult guardian. (see sec. 844.38)
  - Delhi Township. The ordinance contains no references to vendor's ages. However, the ordinance does stipulate that activities in connection with school-related fundraising programs shall not constitute solicitation. (see sec. 13-1)
  - Meridian Township. The ordinance states that a license shall not be required for soliciting for persons under the age of 18. (see sec. 38-151 (b))
  - East Lansing. The ordinance states that a license shall not be required for soliciting for: "Any person under the age of 18 years, except that person under age 18 peddling or vending from a motor vehicle shall be required to obtain a license". (see sec. 8-151 (2))
  - Lansing Township. The ordinance contains no references to vendor's ages.
  - City of Ann Arbor. The fee section of Ann Arbor's ordinance states "The required fee shall be reduced by 75% provided the applicant and legal guardian of the applicant provide



affidavits that the applicant is under 14 years old and reasonably anticipates less than “\$100 profit from the activity.” (see sec. 7-67)

- City of Grand Rapids. The ordinance exempts the following persons from the transient merchant license requirement: “Any person under 18 years of age when engaged in the business of being a transient merchant on foot in the neighborhood of his or her residence under the direct supervision of any school or recognized charitable organization or religious organization”. (see sec. 7.259)
2. Staff has met with the Clerk Clark, Manager Watkins & Lt. Campbell and the consensus was that the Township should exempt persons from the licensing requirement who are involved in a vending activity representing a school, religious or charitable organization.

#### **Sec. 42-35 Application**

(2) If the applicant intends to have persons other than himself/**herself** participate in the proposed vending activity, a list of such persons, including the information listed in section ~~42-34 b~~ **42-35 (1)**, shall also be submitted to the township clerk prior to the approval of the vending license.

#### **Staff Comments**

1. Section 42-35 (2) refers to section 42-34 (b) which is incorrect. The above language references the proper section.

#### **Section 42-35. Application**

**(12) A passport quality photograph shall be provided for each person participating in the vending activity.**

#### **Staff Comments**

1. The vending ordinance is presently silent on the issue of photo ID’s. The Sheriff’s Department has indicated that photo ID’s would assist them in the field when monitoring vending activities and residents might feel more secure if a door to door vendor had a photo ID on a lanyard around their neck. The Clerk’s Office prepares a lanyard ID for those participating in vending but it doesn’t provide a photo which can lead to non-licensed persons “sharing” the ID.

#### **Section 42-35 Application.**

- (1) The applicant’s name, date of birth, ~~social security number, driver’s license number,~~ address, a legible photocopy of their driver’s license or a State ID card, vehicle description, license plate number, ~~and home and work phone numbers~~ and phone numbers for home, work and cell phones.**

Staff Comments

1. Section 42-35 (1) specifies the information to be provided on the Vending License Application. The ordinance mandates a social security number which is not necessary and which applicants may be reluctant to provide.

**Section 42-36 Investigation of applicant**

~~(d) — The township clerk or designee shall photograph the location of the proposed vending activity. The photograph is for the purpose of documenting the condition and appearance of the subject property prior to the establishment of the vending activity.~~

Staff Comments

1. Staff previously noted on page 3 that “before & after” photos of vending sites are not taken by the Clerk’s Office, contrary to the ordinance language. If a violation exists on a property following a vending activity it’s not necessary to document its existence beforehand. Therefore, in order to be consistent, paragraph (d) of section 42-36, which mandates photos of the vending site, should also be deleted.

**Section 42-38. Exemptions from license fee requirements.**

Section 42-38 Exemptions from ~~license~~ **application** fee requirements.

Staff Comments

1. Staff recommends that the title of section 42-38 be changed from “license fee requirements” to “application fee requirements”. Staff doesn’t want to imply to the applicant that by filing an application fee they are guaranteed a license.

**Sec. 42-38. Exemptions from license fee requirements.**

~~(2) — Any person obtaining a vending license as the duly authorized representative or agent of any political group seeking funds or membership.~~

Note: Renumber the paragraph which follows the deleted paragraph #2.

Staff Comments

1. The above section exempts political groups seeking funds & membership from licensing fees but mandates that they still obtain a vending license. Trustee Hicks has raised a concern that mandating a license for political groups could constitute a limitation on the freedom of speech. Staff recommends the deletion of the above text since political fund-raising & membership drives do not meet the definition of “vending”.

### **Vending License & Application Forms**

Attorney Revore's letter of January 3, 2013 addressed staff's request to allow for the issuance of violation tickets to not only the on-site vending employees, but also the proprietor/agent who may have instructed employees to violate the Vending Ordinance or risk termination. Attorney Revore recommended that the Vending License and the License Application include the following statement: "I further acknowledge that the vendor, proprietor, agents & employees will be held responsible for any violations of the Delta Township Vending Ordinance which may result in the issuance of a ticket violation to the vendor."

### **Vending License Application Fees**

1. In 2003 the Township Board passed a resolution establishing the vending fees as follows:
  - \$350 for a New Stationary Vendor License Application
  - \$125 for a New Door-to-Door Vendor License Application
  - \$75 for a Renewed Vendor License Application
2. As per section 42-36 of the Vending Ordinance, the clerk is responsible for performing a background investigation of all persons who engage in vending. In the past, the Sheriff's Department performed the background checks "free of charge". A year ago the Sheriff's Department ceased providing this service and the Township now incurs a charge of \$10 per background check. Some vendors provide a dozen or more names to the Clerk's Office necessitating background checks for each individual. (Example: Fireworks vendors at tent locations and some past magazine sales campaigns soliciting door-to-door.) In these instances, a significant portion of the application fee can be "consumed" performing background checks for multiple employees. It's suggested that the Vending Fee Schedule be adjusted such that vending activities with 5 or less employees still be covered by the "basic" fee but vending activities with 6 or more employees pay an "extra" fee of \$10 per employee to cover the cost of the background checks. The following fee schedule is proposed for vending activities:

**I move that the Delta Township Board hereby adopt the following amended fee schedule for vending activities as per section 42-37 of the Delta Township Code of Ordinances:**

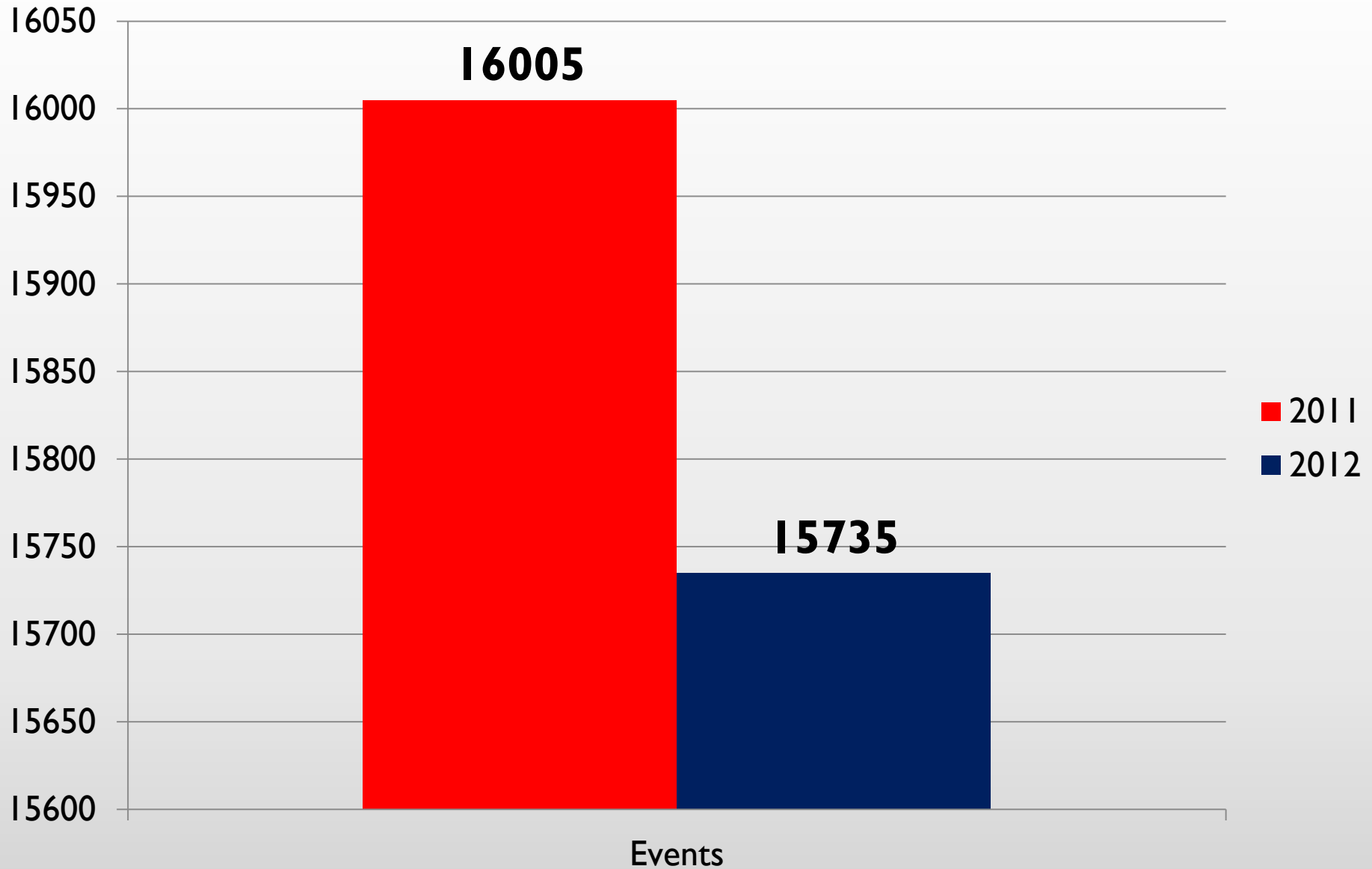
- **\$350 application fee for a new stationary vendor license. The \$350 fee shall provide the vendor with up to five background investigations as required by Section 42-36 of the Code of Ordinances for vending employees. The vendor shall be charged \$10 for the background investigation for each employee exceeding five.**
- **\$125 application fee for a new door-to-door vendor license. The \$125 fee shall provide the vendor with up to five background investigations as required by Section 42-36 of the Code of Ordinances for vending employees. The vendor shall be charged \$10 for the background investigation for each employee exceeding five.**
- **\$75 for renewal of a vendor license within 6 months of the issuance of the original license.**



# 2012 Delta Patrol Annual Report

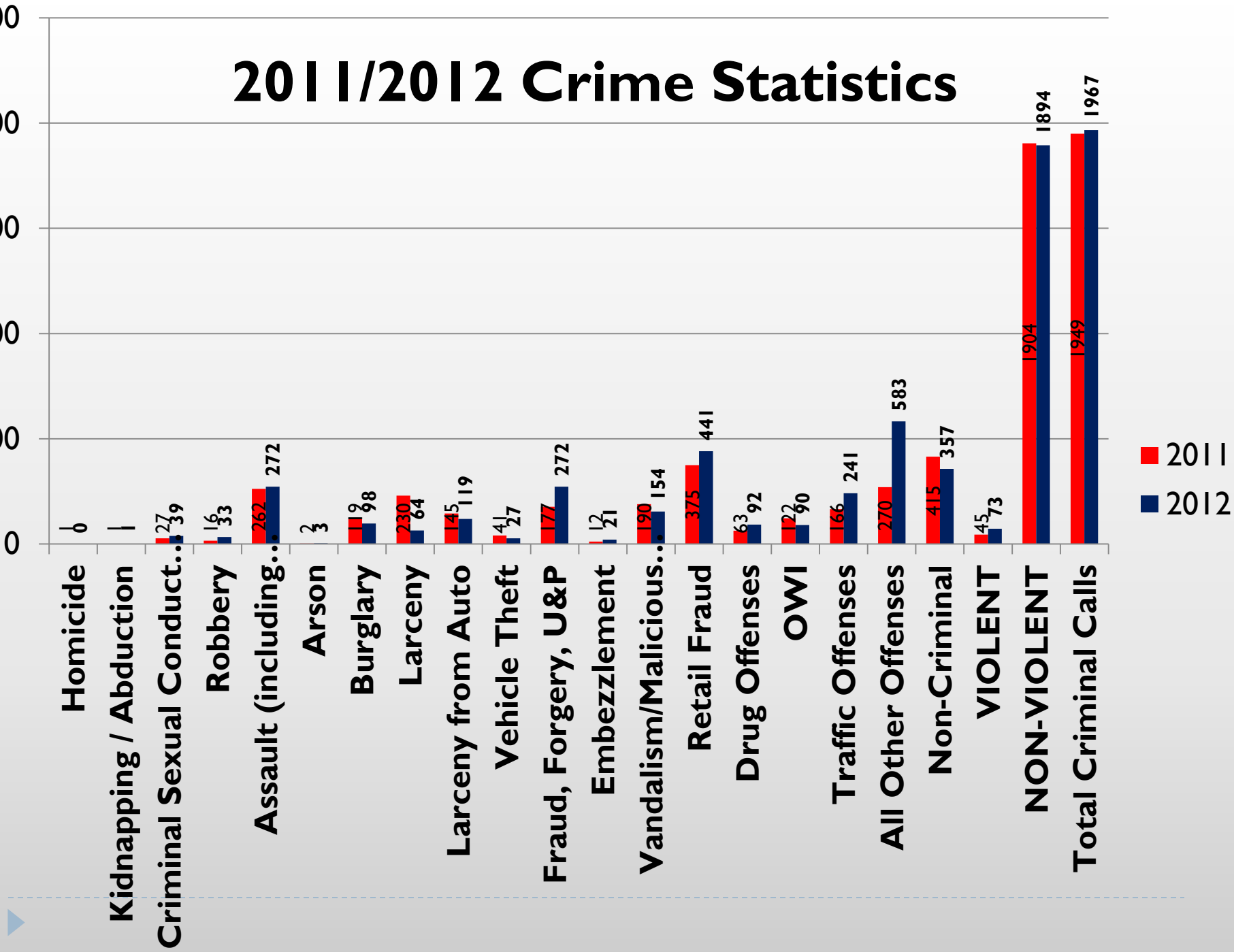
**Lt. Jeff Campbell**

# Event Report 2011/2012\*

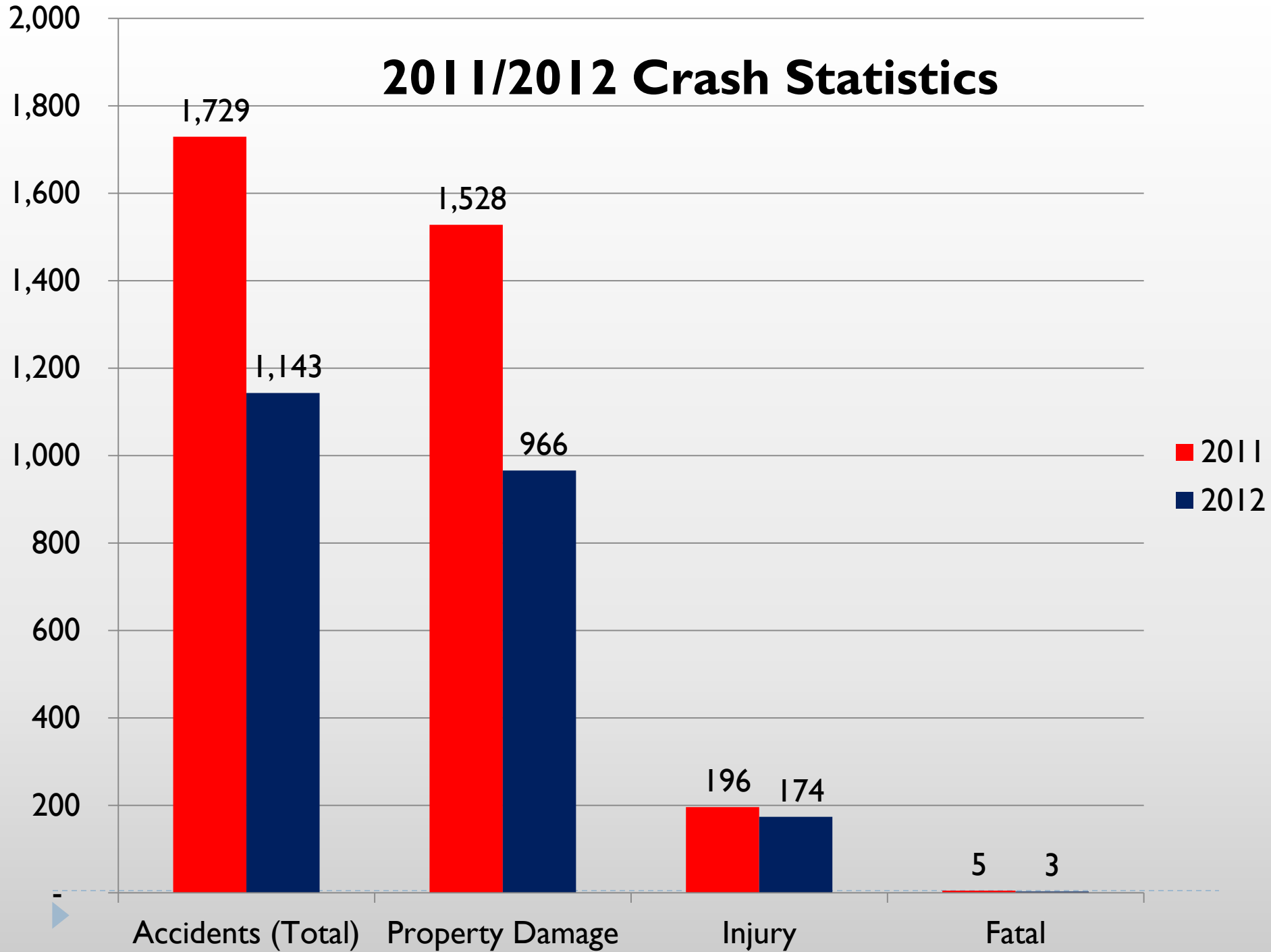


\*Includes all events either self initiated or dispatched to Delta Patrol, excluding traffic stops.

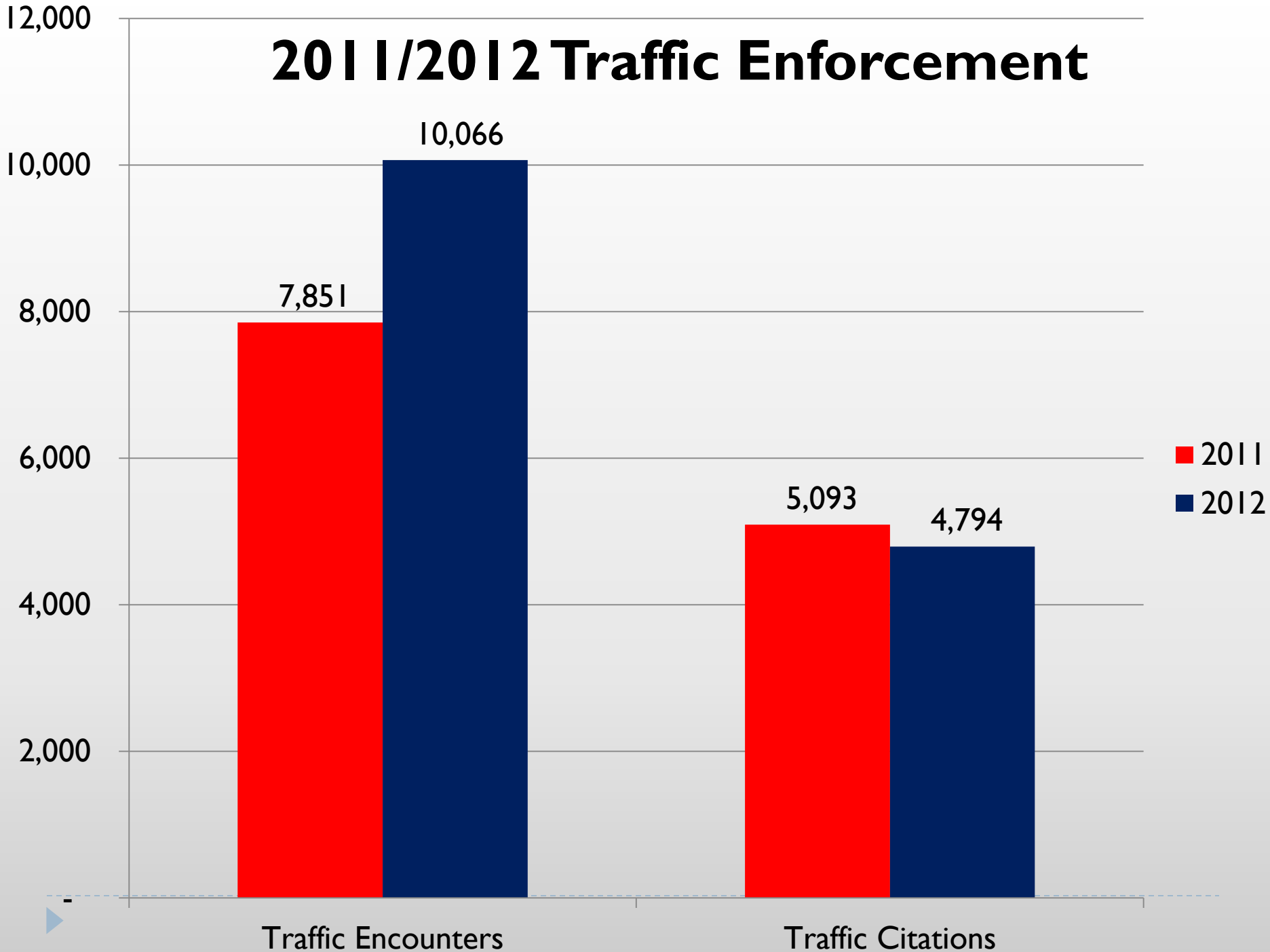
# 2011/2012 Crime Statistics



# 2011/2012 Crash Statistics

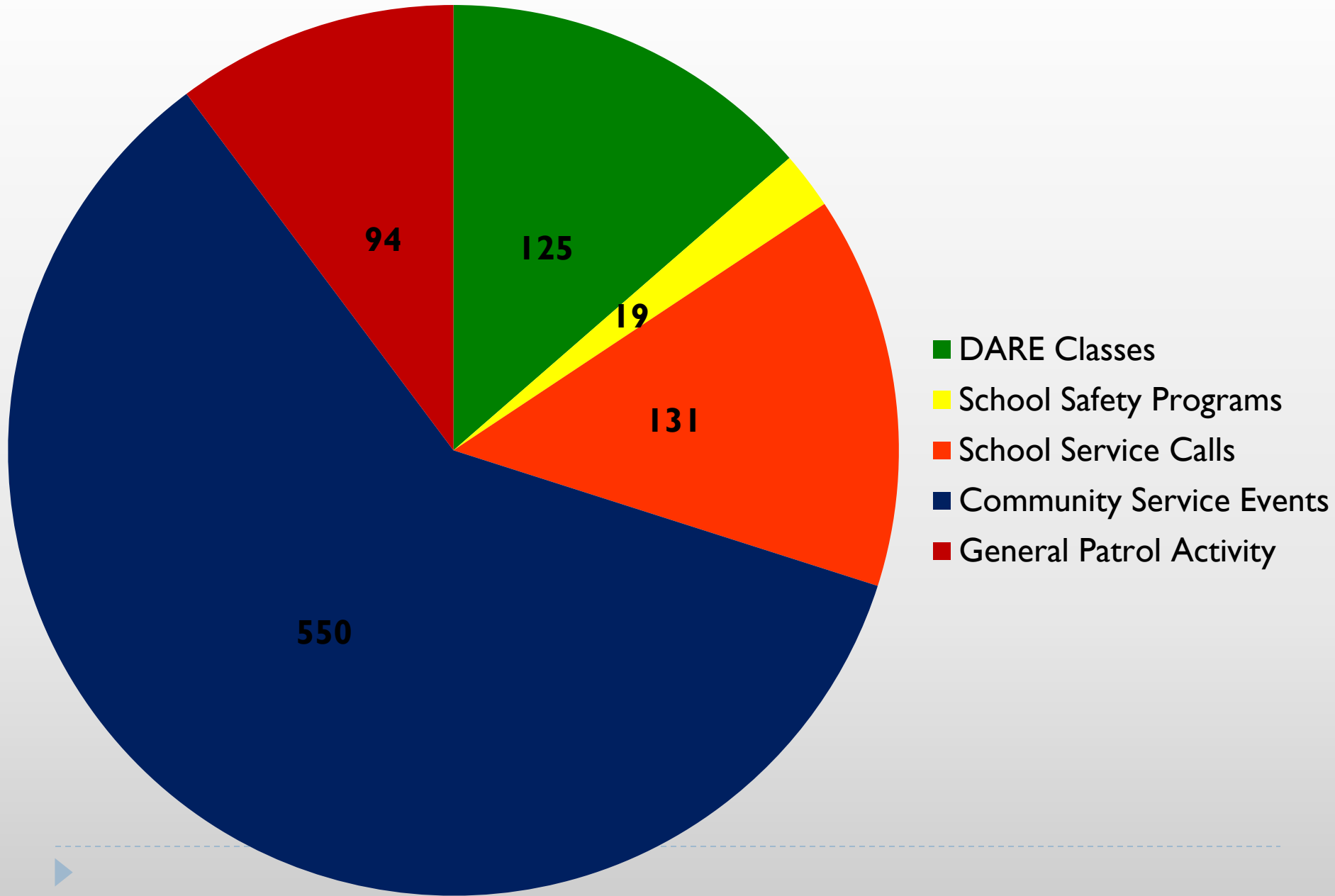


# 2011/2012 Traffic Enforcement

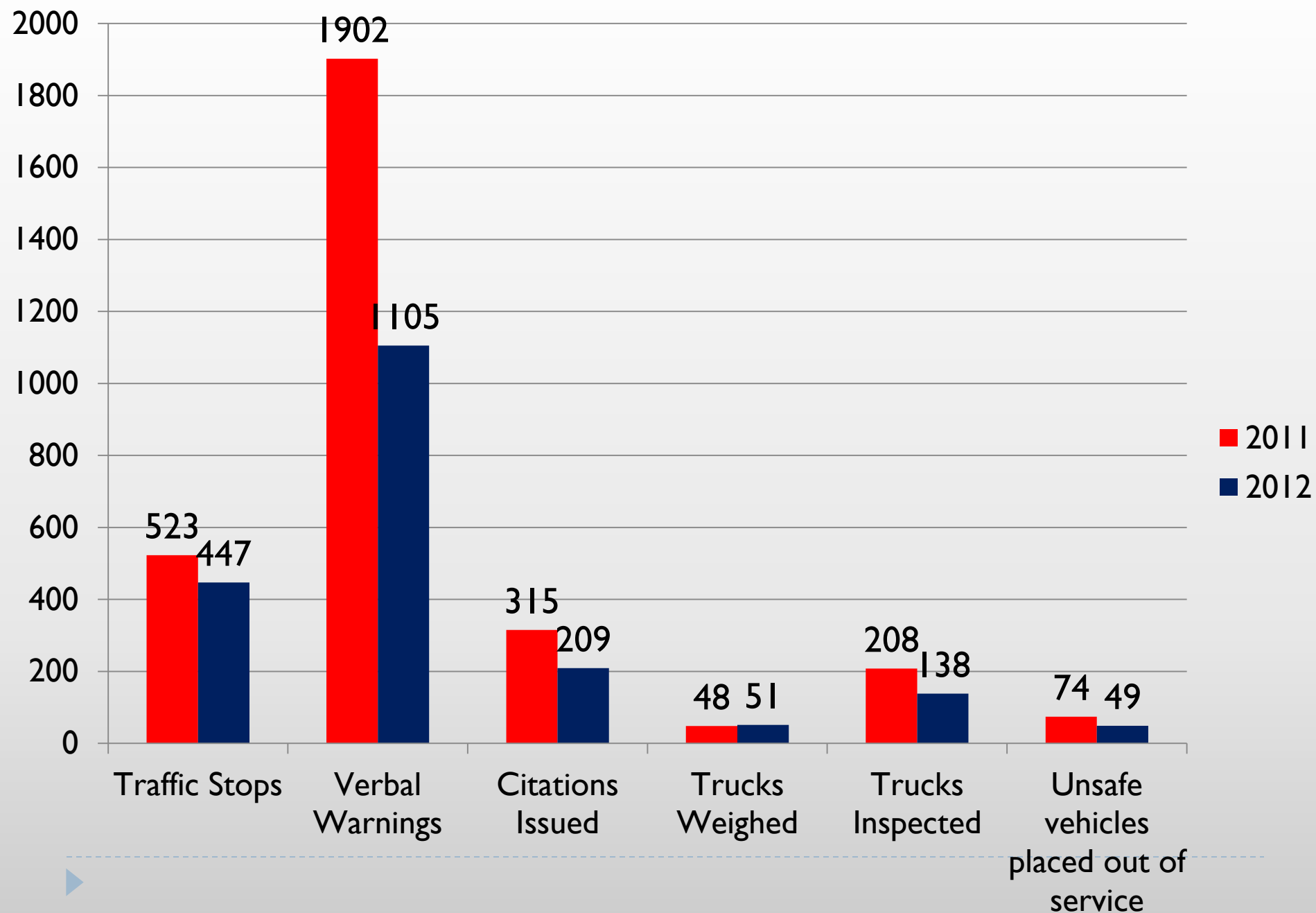




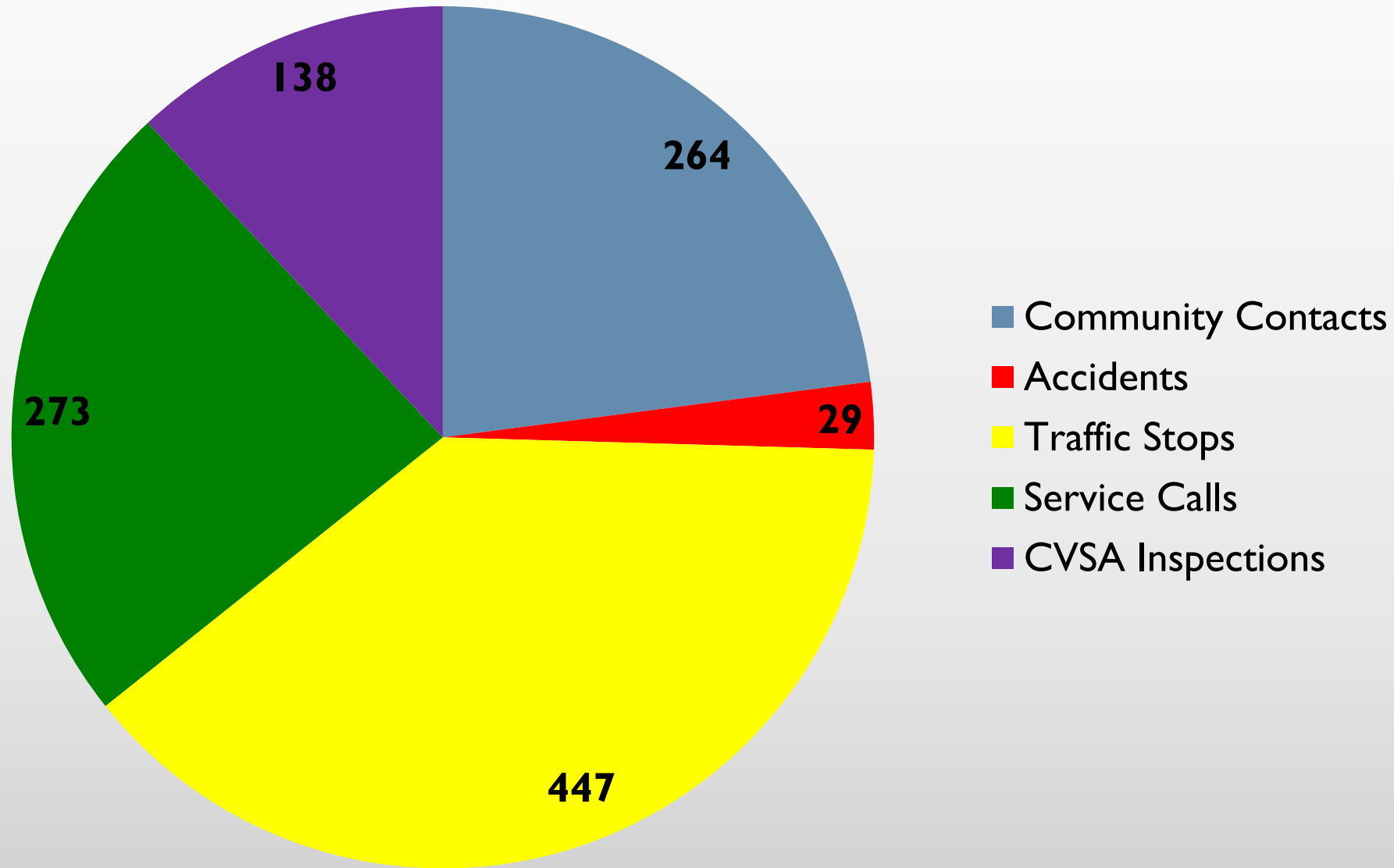
# 2012 Community Services Activity

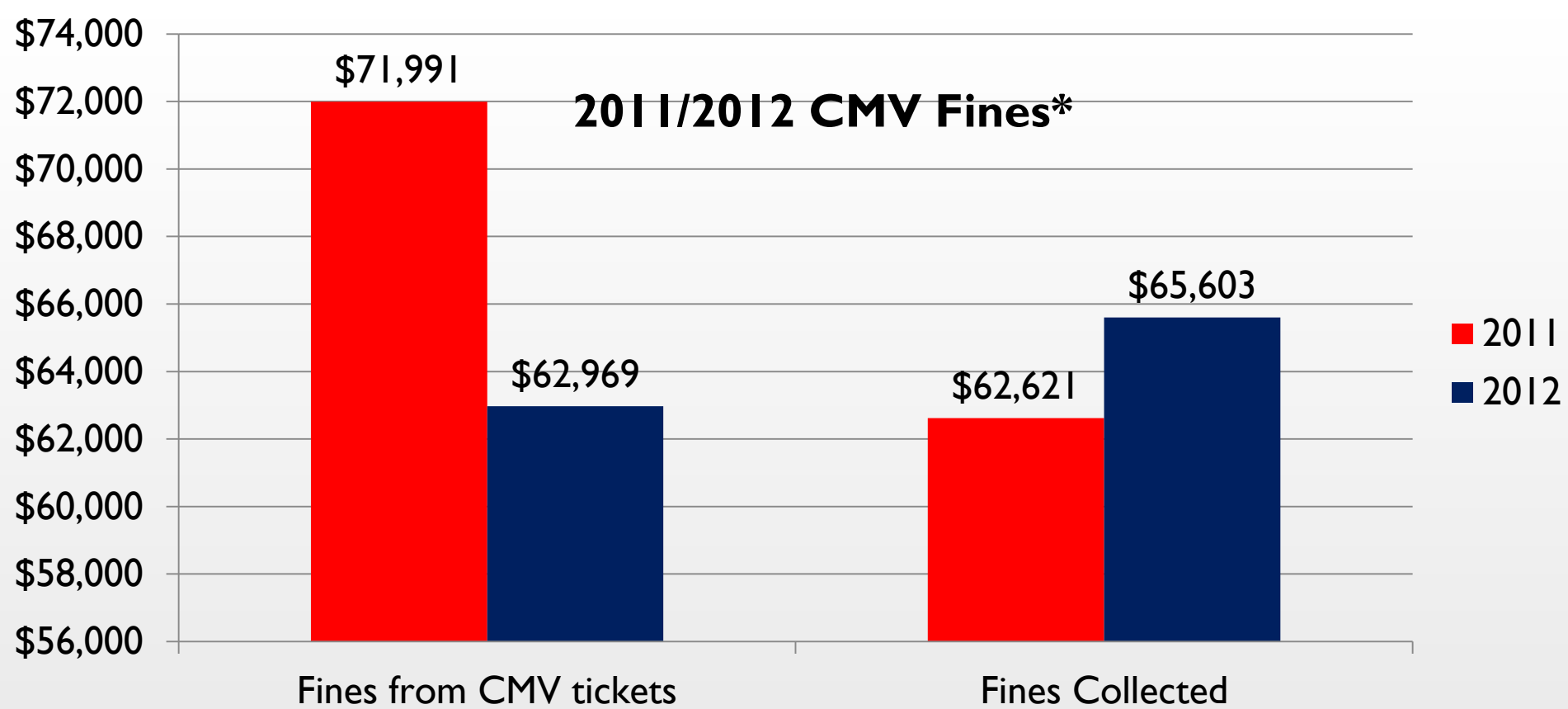


# 2011/2012 Commercial Vehicle Enforcement



# 2012 CMV Activity Breakdown

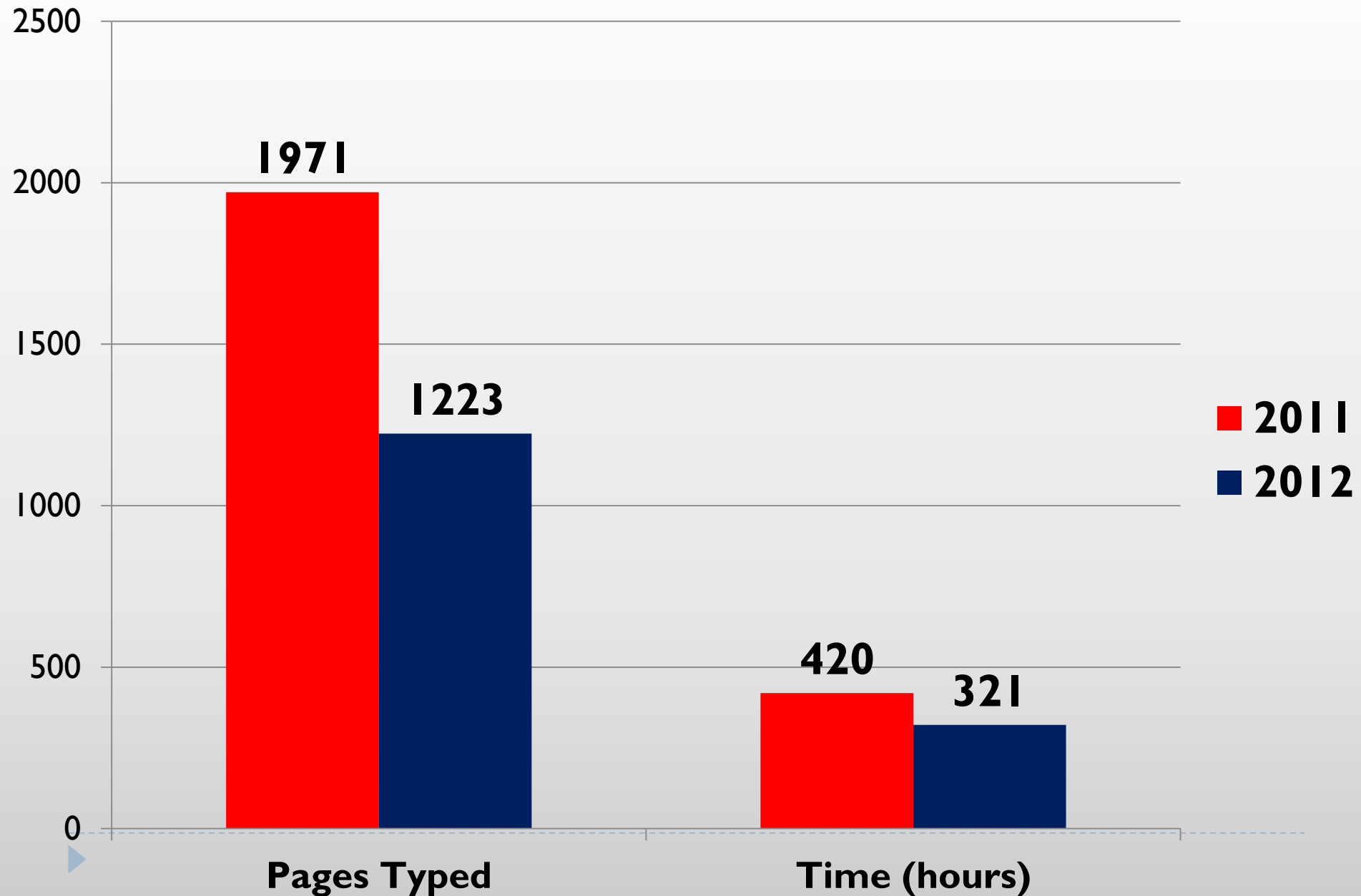




- 2012 Fines Collected includes fines collected from citations issued in 2011.
- Amounts reflect Delta Township's 70% share of fines collected.
- Currently \$15,125 in fines not yet collected from 2012 tickets.
- No Frost Laws implemented by Road Commission in 2012.

# **Delta Clerks**

## **Recorded Interview Transcription**



# Notable Activity

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- ▶ Saginaw Hwy Traffic Enforcement – Fall 2012
- ▶ Meth Team activity – cooperation/assistance from Fire Department
- ▶ Upcoming - Crime Mapping for public use
- ▶ Upcoming - OHSP Traffic Grant for 2013



# Questions?

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# **2012 ANNUAL REPORT**

## **DELTA TOWNSHIP FIRE DEPARTMENT**

CHARTER TOWNSHIP OF DELTA  
Lansing, Michigan



*John C. Clark, Fire Chief*





February 12, 2013

Supervisor Kenneth Fletcher  
Members of the Township Board  
Township Manager Richard Watkins

The attached Delta Township Fire Department *2012 Year End Report* reflects the activities of the fire department for 2012. Although it has been condensed as requested, the report accurately reflects the department's ongoing fire prevention, code enforcement, training and emergency response to alarms.

In addition, an abbreviated ambulance billing program report is presented. During 2012, this program "held its own" for which we are grateful.

I wish to thank the Board of Trustees, and the Township Manager for all of their support given during the past year.

Sincerely,

*John C. Clark*

John C. Clark  
Fire Chief



**FIRE DEPARTMENT** – Established 1953  
811 N. Canal Road ♦ Lansing, MI 48917  
Ph: 517-321-6622 ♦ Fax: 517-323-8583

# DELTA TOWNSHIP FIRE DEPARTMENT

## 2012 Annual Report

This report is provided to the Board of Trustees and reflects fire department activities, important programs and projects that were undertaken during 2012. The annual report also provides statistical data regarding budget items, fire and EMS alarms, and income derived from the ambulance-billing program.

All goals and achievements of the fire department are reflected in the township's Strategic Plan. Goals 2, 7, and 8 are as follows:

**Strategic Goal No. 2:** Enhance Delta Township as a government that is proactive and aware of potential changes and opportunities regarding federal and state government relations.

**Strategic Goal No. 7:** Delta Township will provide a sense of personal security, peacefulness and harmony for people while they are living in their homes, working or traveling in Delta Township.

**Strategic Goal No. 8:** Delta Township shall continue to provide and ensure high quality services, utilities and facilities through long-term planning.

### **FIRE DEPARTMENT DATA**

To date, the fire department has responded to a total of 4,504 fire and EMS responses. Of those alarms, 3,429 were EMS alarms and 1,103 were fire alarms. No fire-related fatality occurred in Delta Township during 2012, for which we are very thankful.

Some of 2012's major fires included the following:





- January 23<sup>rd</sup> : House fire on Winifred; approximately \$45,000 damage
- May 25<sup>th</sup> : Apartment building fire on Canal Rd.; approximately \$115,000.00 damage
- July 1<sup>st</sup> : House Fire on State Rd.; approximately \$70,000.00 damage
- July 20<sup>th</sup> : Commercial building fire on W. Grand River; approximately \$250,000.00 damage
- July 23<sup>rd</sup> : House Fire on River Ct.; approximately \$40,000.00 damage



## **FIRE PREVENTION ACCOMPLISHMENTS**

Presentations and materials were given out to 3,106 students from developmental kindergarten through the fourth grade.

Many fire prevention programs and tours of the township's fire stations were given to preschool and elementary school children who received instruction and materials on fire safety.

Emergency evacuation plans were reviewed and practiced at several Delta Township senior living centers, adult foster care homes, apartment complexes and hotels.

Shift and public training was conducted on the following topics: fire suppression systems, fire alarm systems and kitchen fire safety. An informative newsletter, the *Inspection Connection*, was distributed to all fire department personnel, township officials, and select area fire departments each month.

## **FIRE INVESTIGATION**

The Delta Township fire investigation team responded to several calls requiring normal investigation such as citizen complaints, malfunctioning alarm systems, structure fires, car fires, etc.

Fire investigators investigated eleven fires; two of the fires were determined to be accidental in cause, three were undetermined, and six were determined to be arson (below).

- 620 Snow (field west of Waverly Middle School)
- 1030 Grenoble - House
- Walking bridge between Creyts and Canal
- Zap Zone – Electronic Game
- 5400 W. Mall Drive - Wastebasket
- 531 Chanticleer Trail – wooded area

## **PHYSICAL FITNESS PROGRAM**

Maintaining physical fitness is important for firefighters to reduce the potential for injury or sudden illness during fire suppression and EMS activities. Both Fire Station No. 1 and Fire Station No. 3 provide modern, well-maintained physical fitness equipment in workout rooms.

## **FIRE INSPECTOR'S REPORT**

Fire Inspector O'Brien conducted more than 451 hours of fire inspections including follow-up re-inspections; organized reports and upgraded business cards with new telephone numbers, addresses and contact person information. Many hours were spent with the Building Department Inspectors conducting hotel inspections. Numerous permits were issued for tents and fireworks sales in the township. Shift inspectors conducted 60 business visits for a full fire inspection as well as updating contact information, service Knox boxes and answering general fire prevention questions.

## **PLAN REVIEW**

There were 53 plan reviews conducted for new construction sites as well as many building plan reviews.

## **MUTUAL AID AGREEMENTS**

A total of ten communities surrounding Delta Township and in the greater Lansing area have Mutual Aid Agreements with Delta Township. In addition, five communities provide automatic aid during all structure fires. This mutual and automatic aid provision of responding to other jurisdictions and vice versa reflects the benefit of mutual aid agreements.

## **EMERGENCY MANAGEMENT REPORT**

During 2012, several LPT meetings were held in addition to emergency management training. These important activities, such as the orientation exercise held on September 25, give the Emergency Operations Center staff an opportunity to refresh their skills and to receive new updates and information regarding processes used during actual disaster events.

In addition, the Emergency Management Division of Delta Township updated the emergency response plans for the Delta Township District Library and for the administration building.

## **GRANT PROGRAMS**

The Delta Township Fire Department received a substantial amount of grant funding totaling \$422,000.00 in 2012. \$80,000.00 was received via an EVIP Grant for a new ambulance, personnel training, department radios, and the Training Coordinator position. \$30,000.00 was received from an EVIP/CGAP grant for an upgrade to the radio system. \$162,000.00 was received from the Department of Homeland Security as part of the AFG grant for the purchase of 6 new Lifepak 15 heart monitor/defibrillators and \$50,000.00 was received from the State of Michigan Region I Department of Homeland Security for a CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive Event) response vehicle.

## **CHIEF'S REPORT**

Carried out the 2012 Emergency Management Work Plan for Delta Township, including attendance at all required conferences, workshops, classes, seminars and district meetings.

Conducted several LPT meetings and two full-scale exercises, at Lenawee County and Michigan International Speedway; this included testing of video conferencing equipment.

Developed and completed the FY 2011 Fire Department Annual Report.

Served on the Metro Lansing Fire Chiefs Advisory Board for Training.

Developed and assisted in the instruction of several firefighting and related courses (see *Training Report* section).

Was returned to the Secretary/Treasurer for the Western Michigan Association of Fire Chiefs.

Was returned to the position of Treasurer for the Eaton County Fire Chiefs Association.

Completed several emergency management courses and received Professional Emergency Manager designation.



*Citizen Life-Saving Award for AED use*



*Crew reuniting accident victim with her dog*

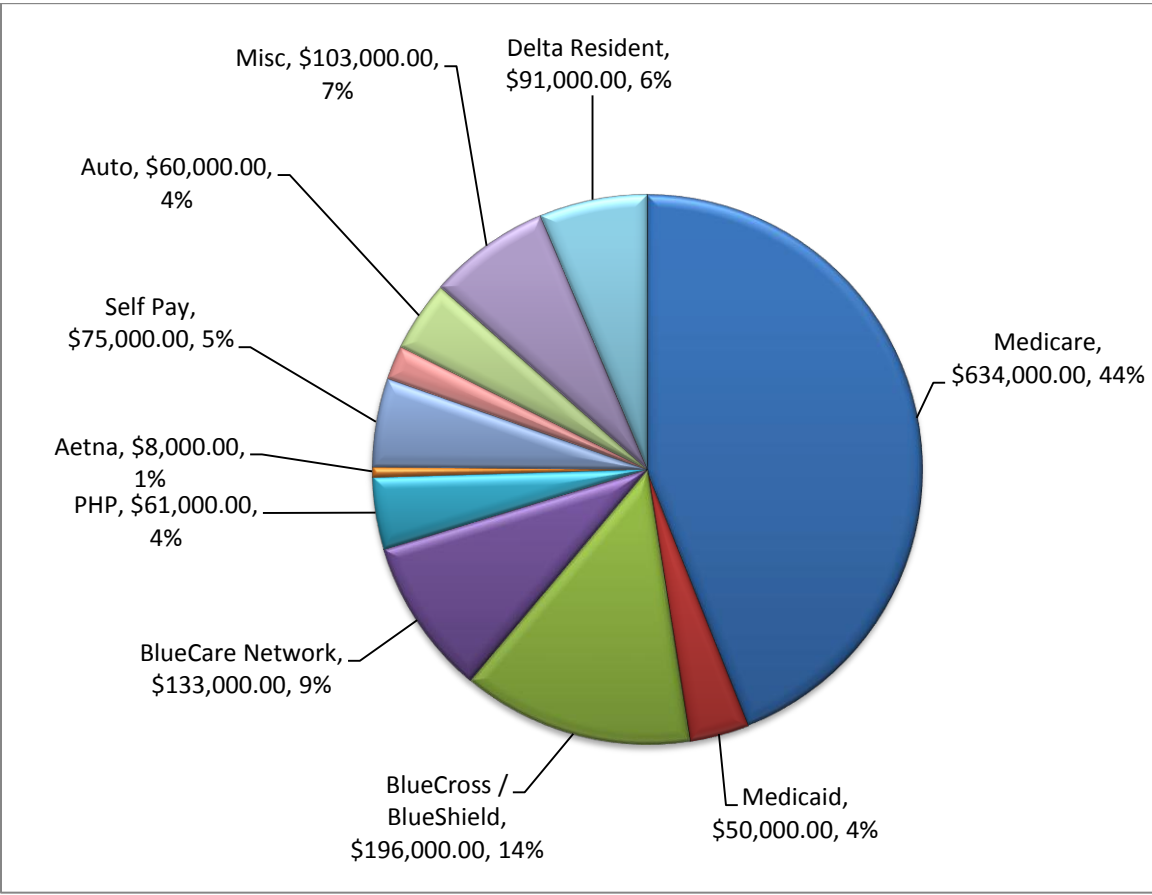
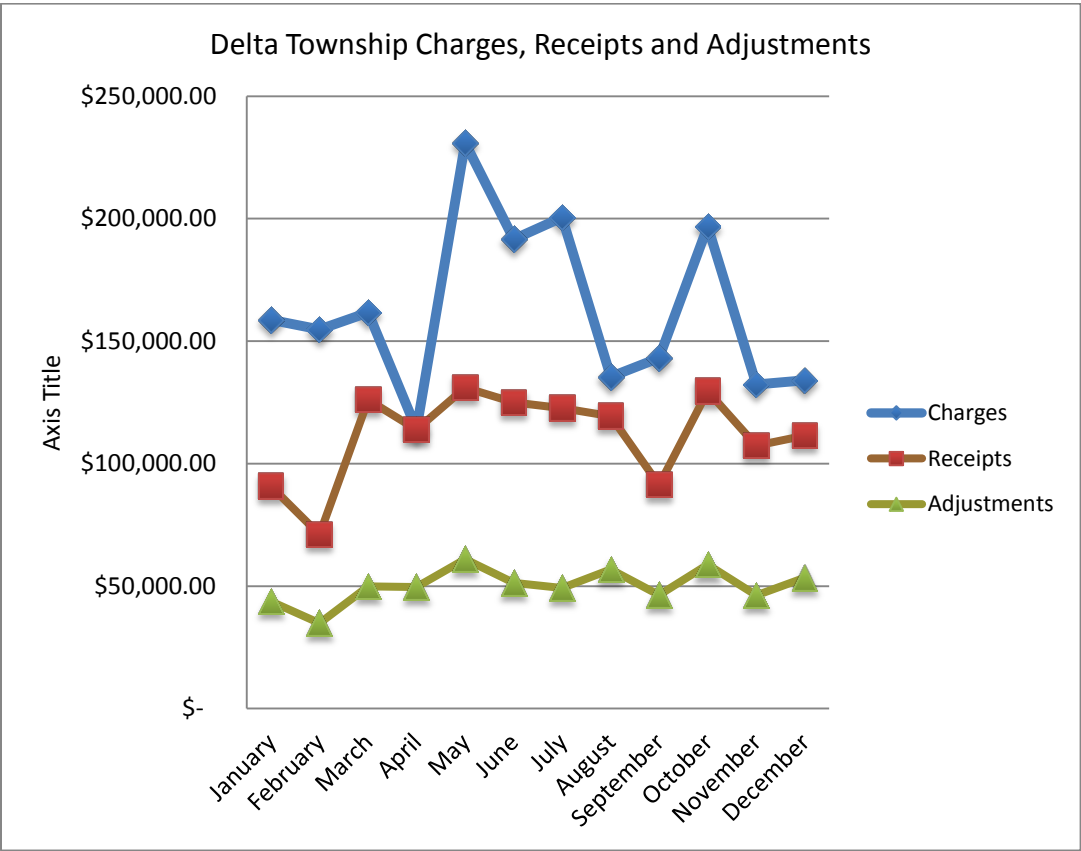
### **FIRE DEPARTMENT STAFFING**

As of December 31<sup>st</sup>, 2012 Delta Township Fire Department personnel consisted of one fire chief, one assistant fire chief, one fire inspector, one secretary, 33 full-time shift personnel and 26 part-time personnel. Delta Township Fire Department personnel hold EMS licenses with the Michigan Department of Consumer & Industry Services.

# AMBULANCE BILLING PROGRAM/MEDICAL MANAGEMENT REPORT

## DELTA TOWNSHIP ONLY

Delta Township Financial Statistics					
Month of Invoice	Charges	Receipts		Adjustments	Encounters
January	\$ 158,757.60	\$ 90,767.87		\$ 43,722.59	241
February	\$ 154,765.60	\$ 71,031.20		\$ 34,814.44	230
March	\$ 161,660.20	\$ 126,084.88		\$ 49,864.66	255
April	\$ 113,972.30	\$ 113,955.05		\$ 49,572.91	168
May	\$ 230,945.80	\$ 130,944.73		\$ 60,975.36	348
June	\$ 191,560.50	\$ 125,016.89		\$ 51,348.78	291
July	\$ 200,553.80	\$ 122,675.97		\$ 49,259.30	300
August	\$ 135,463.60	\$ 119,360.45		\$ 56,843.72	199
September	\$ 143,139.00	\$ 91,331.39		\$ 46,417.84	213
October	\$ 196,796.50	\$ 129,613.14		\$ 58,785.18	341
November	\$ 132,265.10	\$ 107,414.62		\$ 46,268.56	200
December	\$ 134,041.60	\$ 111,431.79		\$ 53,449.99	211
<b>TOTAL</b>	<b>\$ 1,953,921.60</b>	<b>\$ 1,339,627.98</b>	<b>\$ -</b>	<b>\$ 601,323.33</b>	<b>2997</b>
<u>2012</u>					
Charges	\$ 1,953,921.60	average monthly charge .....			\$ 162,826.80
Receipts	\$ 1,339,627.98	average monthly receipt .....			\$ 111,635.67
Adjustments	\$ 601,323.33	average monthly adjustment .....			\$ 50,110.28
Bad Debt	\$ 73,301.26	bad debt, write off to collection			
Encounters	2997				
<u>2011</u>		<u>\$ Difference</u>		<u>% Difference</u>	
Charges	\$ 1,939,475.20	\$ 14,446.40		1%	
Receipts	\$ 1,386,153.84	\$ (46,525.86)		-3%	
Adjustments	\$ 622,690.97	\$ (21,367.64)		-3%	
Bad Debt	\$ 45,182.92	\$ 28,118.34		62%	
Encounters	3051	-54		-2%	
	<u>2012</u>	<u>2011</u>		<u>\$ Difference</u>	<u>% Difference</u>
Avg Charge	\$ 651.96	\$ 635.69		\$ 16.27	2.6%
Avg Receipt	\$ 446.99	\$ 454.33		\$ (7.34)	-1.6%
Avg Adj	\$ 200.64	\$ 204.09		\$ (3.45)	-1.7%
Collection Recovery	\$16,052.26	\$25,251.92			



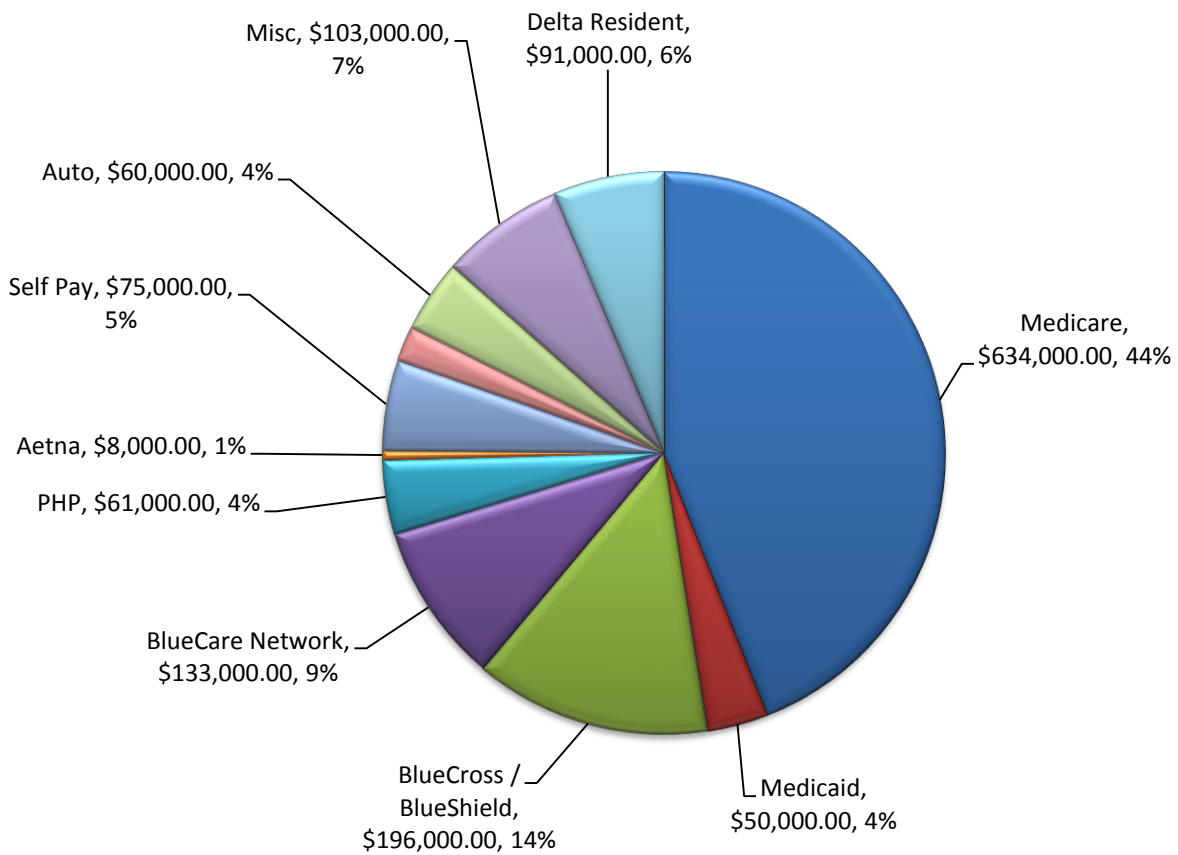
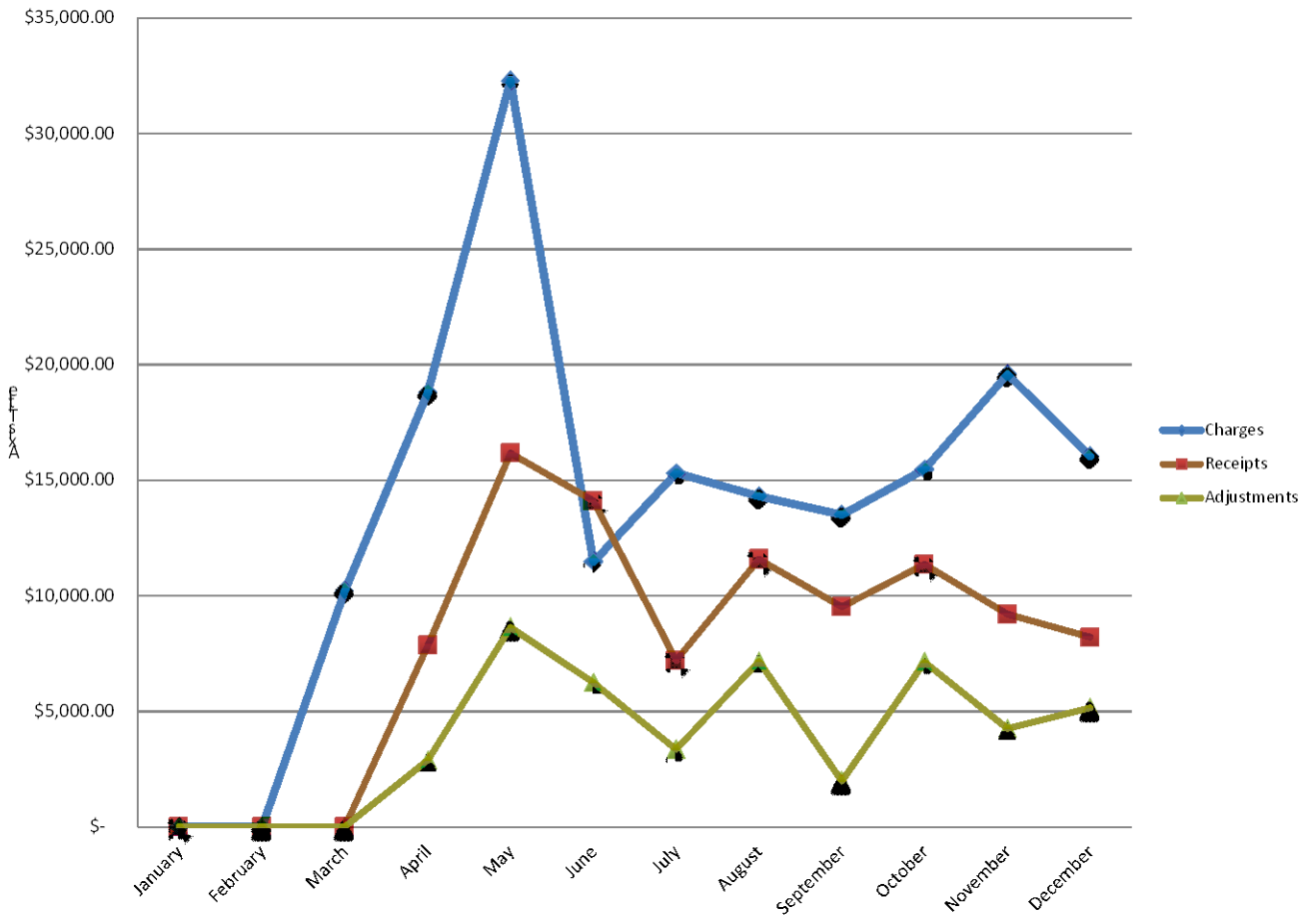


# AMBULANCE BILLING PROGRAM/MEDICAL MANAGEMENT REPORT

## WATERTOWN AND EAGLE TOWNSHIPS ONLY

Watertown and Eagle Townships Financial Statistics				
Month of Invoice	Charges	Receipts	Adjustments	Encounters
January	\$ -	\$ -	\$ -	0
February	\$ -	\$ -	\$ -	0
March	\$ 10,208.20	\$ -	\$ -	15
April	\$ 18,790.80	\$ 7,846.97	\$ 2,878.97	25
May	\$ 32,283.00	\$ 16,168.87	\$ 8,635.50	42
June	\$ 11,468.60	\$ 14,112.11	\$ 6,251.74	15
July	\$ 15,316.20	\$ 7,207.70	\$ 3,361.98	21
August	\$ 14,303.20	\$ 11,578.07	\$ 7,165.27	18
September	\$ 13,499.20	\$ 9,517.22	\$ 1,974.30	18
October	\$ 15,476.60	\$ 11,358.31	\$ 7,138.86	20
November	\$ 19,581.20	\$ 9,206.89	\$ 4,254.68	26
December	\$ 16,030.40	\$ 8,202.70	\$ 5,150.20	21
<b>TOTAL</b>	\$ 166,957.40	\$ 95,198.84	\$ 46,811.50	221
<u>2012</u>				
Charges	\$ 166,957.40	average monthly charge.....		\$ 13,913.12
Receipts	\$ 95,198.84	average monthly receipt.....		\$ 7,933.24
Adjustments	\$ 46,811.50	average monthly adjustment.....		\$ 3,900.96
Bad Debt	\$ 6,460.03	bad debt, write off to collection		
Encounters	221			

Watertown and Eagle Townships Charges, Receipts and Adjustments

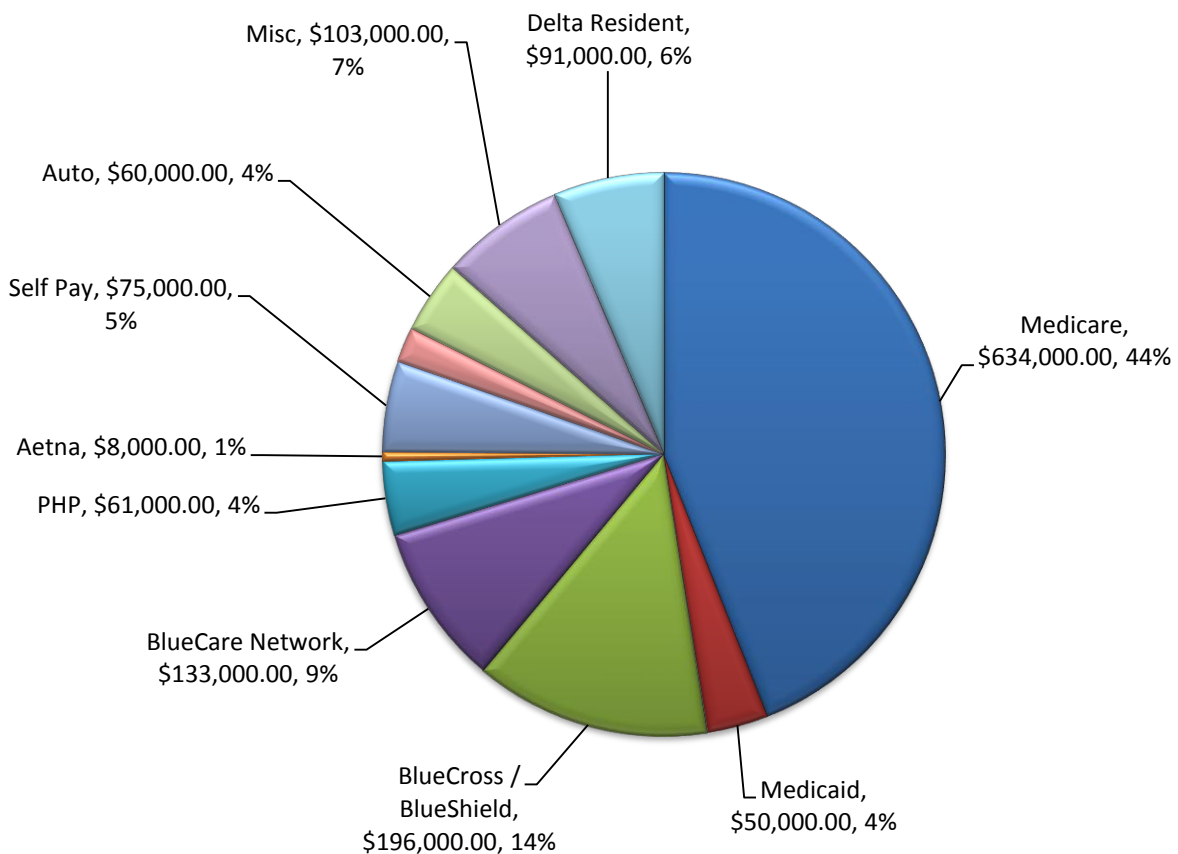
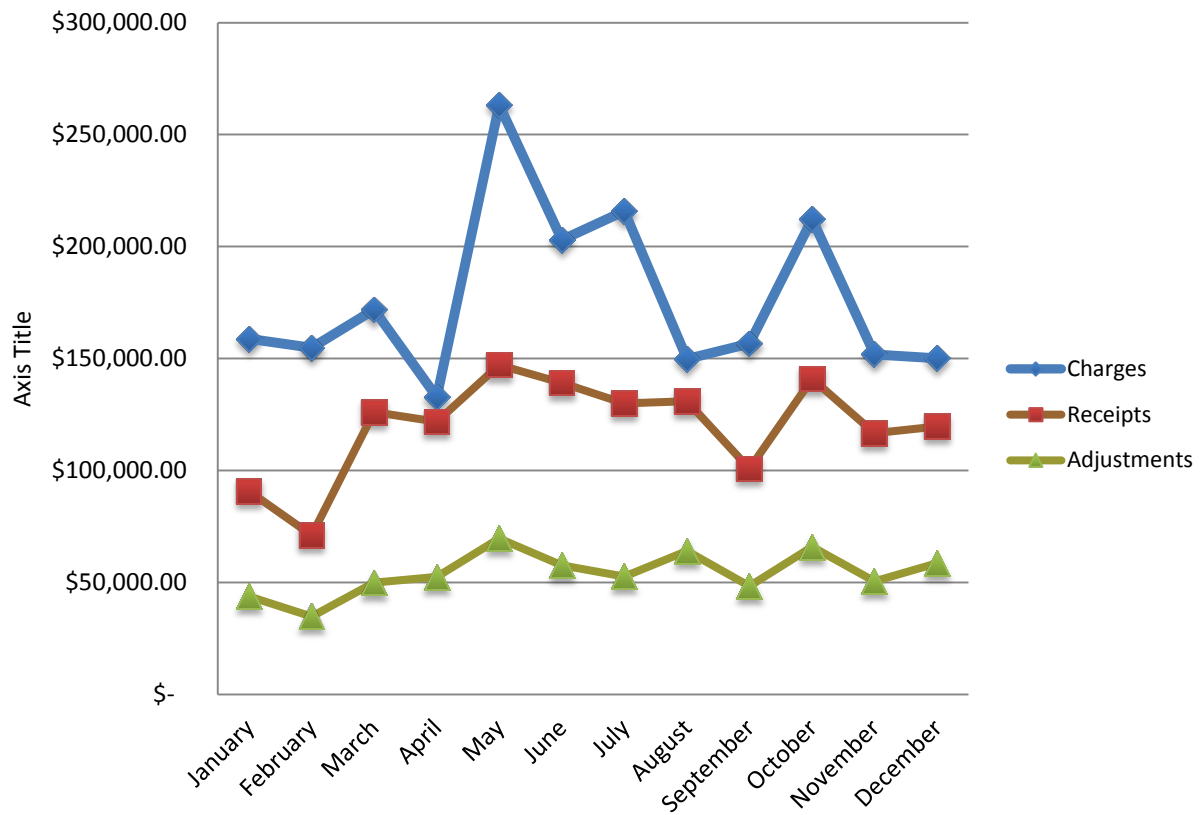


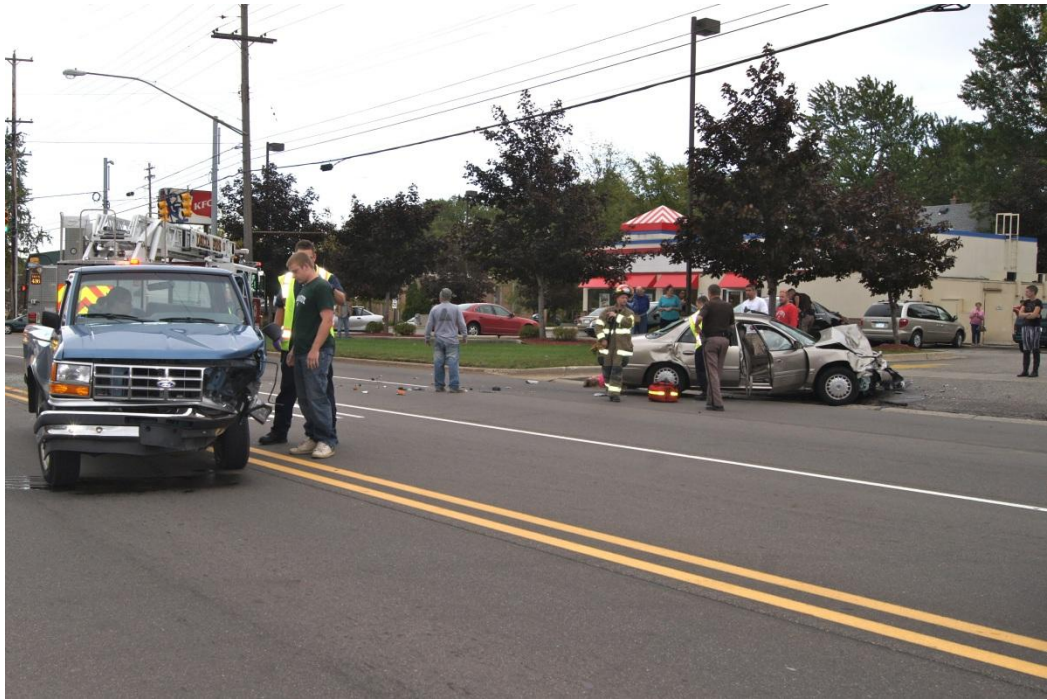
# AMBULANCE BILLING PROGRAM/MEDICAL MANAGEMENT REPORT

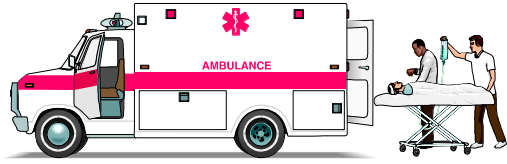
## DELTA, WATERTOWN AND EAGLE TOWNSHIPS COMBINED

Delta, Watertown and Eagle Combined Financial Statistics				
Month of Invoice	Charges	Receipts	Adjustments	Encounters
January	\$ 158,757.60	\$ 90,767.87	\$ 43,722.59	241
February	\$ 154,765.60	\$ 71,031.20	\$ 34,814.44	230
March	\$ 171,868.40	\$ 126,084.88	\$ 49,864.66	270
April	\$ 132,763.10	\$ 121,802.02	\$ 52,451.88	193
May	\$ 263,228.80	\$ 147,113.60	\$ 69,610.86	390
June	\$ 203,029.10	\$ 139,129.00	\$ 57,600.52	306
July	\$ 215,870.00	\$ 129,883.67	\$ 52,621.28	321
August	\$ 149,766.80	\$ 130,938.52	\$ 64,008.99	217
September	\$ 156,638.20	\$ 100,848.61	\$ 48,392.14	231
October	\$ 212,273.10	\$ 140,971.45	\$ 65,924.04	361
November	\$ 151,846.30	\$ 116,621.51	\$ 50,523.24	226
December	\$ 150,072.00	\$ 119,634.49	\$ 58,600.19	232
<b>TOTAL</b>	<b>\$ 2,120,879.00</b>	<b>\$ 1,434,826.82</b>	<b>\$ 648,134.83</b>	<b>3218</b>
<u>2012</u>				
Charges	\$ 2,120,879.00	average monthly charge.....		\$ 176,739.92
Receipts	\$ 1,434,826.82	average monthly receipt.....		\$ 119,568.90
Adjustments	\$ 648,134.83	average monthly adjustment.....		\$ 54,011.24
Bad Debt	\$ 89,051.29	bad debt, write off to collection		
Encounters	3218			
<u>2011</u>				
		<u>\$ Difference</u>	<u>% Difference</u>	
Charges	\$ 1,939,475.20	\$ 181,403.80	9%	
Receipts	\$ 1,386,153.84	\$ 48,672.98	4%	
Adjustments	\$ 622,690.97	\$ 25,443.86	4%	
Bad Debt	\$ 45,182.92	\$ 43,868.37	97%	
Encounters	3051	167	5%	
	<u>2012</u>	<u>2011</u>	<u>\$ Difference</u>	<u>% Difference</u>
Avg Charge	\$ 659.07	\$ 635.69	\$ 23.38	3.7%
Avg Receipt	\$ 445.88	\$ 454.33	\$ (8.45)	-1.9%
Avg Adj	\$ 201.41	\$ 204.09	\$ (2.68)	-1.3%
Collection Recovery	\$16,102.26	\$25,251.92		

Delta, Watertown, and Eagle Townships Charges, Receipts and Adjustments







## DELTA TOWNSHIP FIRE DEPARTMENT EMS RESPONSES

### 2012 EMS Statistics

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>911 Tones</b>	285	270	348	355	347	336	393	367	330	307	322	344	4004
<b>Station No. 1</b>	151	134	163	138	161	148	176	151	135	134	121	145	1757
<b>Station No. 2</b>	N/A	N/A	29	44	38	34	39	42	34	32	37	35	364
<b>Station No. 3</b>	123	123	149	164	135	139	157	146	141	123	149	157	1706
<b>RESPONSES</b>													
<b>A131</b>	30	15	127	28	12	22	35	69	24	35	7	0	404
A132	50	109	129	114	73	109	151	101	67	95	106	106	1210
A133	81	18	27	43	35	40	35	43	103	18	19	75	537
A134	23	21	2	0	1	0	0	23	31	34	38	37	210
A135	32	41	32	23	96	45	24	14	73	11	17	92	500
A136	55	54	24	138	122	110	133	98	19	106	127	34	1020
E412 (EMS only)	0	0	0	0	1	0	0	1	0	0	0	0	2
E413 (EMS only)	0	0	0	0	0	0	4	0	0	0	0	0	4
E421 (EMS only)	0	0	0	0	0	2	0	0	0	0	0	0	2
T436 (EMS only)	1	0	0	0	0	0	1	3	2	1	0	0	8
Other (EMS only)	13	12	7	9	7	8	10	15	11	7	8	0	107



## **TRAINING ACCOMPLISHMENTS**

The Delta Township Fire Department is a full-service emergency response agency. As such, Delta Township Fire Department's personnel respond to a variety of emergency calls ranging from medical emergencies to car accidents, structure fires and hazardous materials incidents.

To effectively accomplish these tasks, both full- and part-time personnel train on a daily and weekly basis within our organization as well as with all of our mutual aid partners. In addition, the Delta Township Fire Department is a member of the Metro Lansing Area Technical Rescue Team along with Meridian Township as well as the Cities of Lansing and East Lansing. These agencies train and respond together on a variety of technical rescues throughout Ingham, Eaton, and Clinton counties. This collaborative effort is directed by the three fire chiefs in these communities and the Lansing Fire Department Assistant Fire Chief and is supported by the municipal and township leaders.



*Water Rescue Training*

## **TRAINING**

Listed below you will find training for the Delta Township Fire Department in the following categories: Emergency Medical Services, Firefighting, Hazardous Materials, Technical Rescue, Fire Prevention and Fire Education exceeding more than 5,400 hours of training:

- ACLS
- Aerial Ladder Operations
- Aerial Operations on Various Apparatus
- Air Monitoring/Decon
- Airway
- Allergic Reaction
- Apparatus Operations
- Back Boarding
- Basket Operations
- Building Construction
- Building Construction
- Cardiac Emergencies
- Chain of Command
- Collapse
- Communication Training
- Company Level Incident Command
- Confined Space
- CPR
- Dealing with the Difficult Employee
- Disaster Planning/Triage
- Drafting and Jet Siphoning
- Driver Recertification
- Driver's Training and Recertification
- Fast Attack Mode/Positive Pressure Attack
- FDC Operations
- Fire Alarm Systems
- Firefighter Safety
- Fire Suppression Systems
- Firefighter Survival and Self-Rescue
- Foam Operations
- Friction Loss/Hydraulics
- General Motors Utilities (Paint Facility Review)
- Ground Ladders
- Ground Operations
- Hazardous Materials Operations
- Haz-Mat Flame Ionization Detector
- Haz-Mat Ops-Air Monitoring
- Haz-Mat Technician
- Haz-Mat Trailer Review
- Ice/Water Rescue
- ICS
- Incident Command System
- Introduction to Drivers Training
- Ladder Operations
- Lightweight Building Construction
- Maps/Streets
- Meijer Warehouse Haz-Mat Training (Exercise)
- Meth Lab Hazardous Response
- Monitors/Knots
- Patient Assessment
- Pediatric Assessment
- Platform Operations
- Positive Pressure Ventilation
- Preserving Evidence
- Pumping Ops
- Rapid Intervention Team Training
- Relay Pumping
- Rescue/Winch
- Ropes/Knots
- SCBA Skills and Confidence Course
- SCBA Training
- Search & Rescue
- Suppression Systems
- T-416 Setup/Basket Operations
- Tanker Pumps Operations/Drafting
- Tanker/Tender Operations
- Trench Rescue
- Tri-County Protocol Update Review
- Various SOG/TCEMCA Protocols
- Ventilation
- Water Rescue
- Water Rescue/Boat Ops
- Water Supply/Tanker Operations
- Weather/Tornado Systems
- Workplace Violence



**DELTA CHARTER TOWNSHIP**  
**GENERAL FUND BALANCE SHEET**  
**DECEMBER 31, 2012**

*Unaudited- Subject to Revision*

	PERIOD ENDED 12/31/2011	PERIOD ENDED 12/31/2012
Cash	16,866,760	18,155,024
Taxes Receivable - Current	4,541,297	3,362,416
Taxes Receivable-Delinq. Chrgs	2,061	3,532
Taxes Receivable-Delinq.Pers.	65,377	61,477
Accounts Receivable - General	258,721	203,447
Due From Other Funds	13,596	8,689
Due From Sewer Fund	27,978	37,007
Due From Water Fund	9,268	10,901
INVENTORY - Maycroft	-	90,000
PREPAID EXPENSE	56,548	11,700
Total Assets	21,841,606	21,944,192
Accounts Payable	330,401	239,329
Accounts Payable - Other	97	1,968
Customer Dep. Payable	48,674	61,511
Accrued Wages Payable	144,973	176,418
Payroll Taxes W/H - FICA	10,473	13,635
Deferred Revenues	6,835,177	6,698,225
Total Liabilities	7,369,795	7,191,085
Total Fund Balance	14,471,811	14,753,107
Total Liabilities And Fund Balance	21,841,606	21,944,192

**DELTA TOWNSHIP**  
**FUND BALANCE SECTION**  
**GF BALANCE SHEET**  
**12/3/2012**

*Unaudited- Subject to Revision*

<b>FUND BALANCES:</b>		<b>12/31/2011</b>		<b>12/31/2012</b>
<i>Nonspendable:</i>				
Prepaid Expenditures	\$	89,734	\$	101,700
<i>Restricted:</i>				
Budget Stabalization	\$	450,000	\$	450,000
<i>Assigned:</i>				
Future Road Projects	\$	1,200,000	\$	700,000
Economic Development	\$	200,000	\$	500,000
Retiree Health Insurance Costs	\$	2,000,000	\$	2,000,000
Non-Motorized Transportation	\$	300,000	\$	500,000
Capital Improvements	\$	1,000,000	\$	1,300,000
County Drains	\$	290,000	\$	200,000
Compensated Absences	\$	786,183	\$	801,210
<i>Unassigned:</i>	\$	8,165,895	\$	8,200,197
<b>TOTAL FUND BALANCES</b>	\$	14,481,812	\$	14,753,107

**Delta Charter Township**  
**General Fund Revenues & Expenditures**  
**As of 12/31/2012**

**Revenues:**

	Year -To-Date 12/31/2012	Year -To-Date 12/31/2011
Current Property Taxes	\$ 6,994,498	\$ 7,306,121
Property Tax Admin. Fee	\$ 544,504	\$ 562,088
State Revenue Sharing	\$ 2,347,192	\$ 2,340,854
Ambulance Fees	\$ 1,357,669	\$ 1,291,299
Grant Revenue	\$ 313,761	\$ 393,538
Interest	\$ 224,553	\$ 255,951
Ordinance Fines	\$ 92,275	\$ 74,457
Parks & Recreation User Fees	\$ 313,207	\$ 303,589
Permit Fees (Building & Related)	\$ 578,497	\$ 354,217
Cable T.V. Franchise Fees	\$ 514,518	\$ 507,685
Contributions - Other Local Gov't.	\$ 318,332	\$ 74,543
Transfers In	\$ 1,005,514	\$ 1,173,142
Passport Fees	\$ 15,302	\$ 13,795
Other Revenue	\$ 1,262,524	\$ 1,700,746
<b>Total Revenues</b>	<b>\$ 15,882,346</b>	<b>\$ 16,352,025</b>

**DELTA CHARTER TOWNSHIP  
GENERAL FUND EXPENDITURES  
12/31/2012**

	2012 AMENDED BUDGET	BALANCE 12/31/2012	BALANCE 12/31/2011	% BDGT USED
Expenditures				
101.000-Board of Trustees	87,608	85,541	85,132	97.64
172.000-Township Manager	466,209	456,679	431,264	97.96
215.000-Township Clerk	607,471	605,697	408,344	99.71
228.000-INFORMATION TECHNOLOGY	254,419	247,891	217,032	97.43
253.000-Accounting & Treasury	591,265	526,760	654,570	89.09
257.000-Assessing	492,009	417,135	431,549	84.78
265.000-Building and Grounds	410,200	383,272	338,543	93.44
272.000-General Activity	839,701	742,498	845,141	88.42
276.000-Cemetery	237,550	223,667	216,460	94.16
301.000-Sheriff	3,092,488	3,038,181	2,950,527	98.24
336.000-Fire Department	2,138,934	2,137,617	1,942,724	99.94
336.333-LGRFA	464,292	319,480	0	68.81
336.344-Emergency Operations Center	15,500	10,034	11,524	64.73
371.000-Building/Safety Inspection	676,266	662,544	814,341	97.97
442.000-RECYCLING	64,571	60,643	61,376	93.92
445.000-Drains	535,027	533,418	820,355	99.70
446.000-Roads	771,500	585,539	701,433	75.90
447.000-Engineering	360,289	298,299	502,871	82.79
448.000-Street Lighting	485,930	475,640	472,548	97.88
651.000-Ambulance	2,346,587	2,273,070	2,448,307	96.87
721.000-Planning	369,764	321,627	356,258	86.98
728.000-Economic Development	90,336	86,161	66,644	95.38
751.000-Parks and Recreation	1,295,534	1,109,660	1,280,240	85.65
	-----			
TOTAL Expenditures	16,693,450	15,601,050	16,057,183	93.46
NET CHANGE IN FUND BALANCE		281,296	294,842	

**DELTA CHARTER TOWNSHIP  
WATER/SEWER FUNDS FINANCIAL STATEMENTS  
12/31/2012**

**DRAFT - UNAUDITED INFORMATION**

	2012 BUDGET	YEAR-TO-DATE 12/31/2012	YEAR-TO-DATE 12/31/2011	% CHANGE PRIOR YEAR
<b>SEWER FUND</b>				
Revenue:				
Sewer Sales	\$ 3,806,900	\$ 3,667,315	\$ 3,635,639	0.9%
Main/Capital Charges	\$ 63,300	\$ 132,781	\$ 176,754	-24.9%
Interest	\$ 108,000	\$ 110,942	\$ 162,245	-31.6%
Late payment penalties	\$ 42,500	\$ 46,545	\$ 43,479	7.1%
Other Revenue	\$ 14,900	\$ 43,359	\$ 37,376	16.0%
 Total Revenue	 \$ 4,035,600	 \$ 4,000,942	 \$ 4,055,493	 -1.3%
 Total Expenditures(including Depreciation)	 \$ 4,067,597	 \$ 5,402,832	 \$ 5,387,975	 0.3%
 NET REVENUE OVER EXPENDITURES		 \$ (1,401,890)	 \$ (1,332,482)	
 CASH BALANCE AT 12/31:		 \$ 9,731,508	 \$ 10,057,147	

	2012 BUDGET	YEAR-TO-DATE 12/31/2012	YEAR-TO-DATE 12/31/2011	% CHANGE PRIOR YEAR
<b>WATER FUND</b>				
Revenue:				
Water Sales	\$ 4,784,500	\$ 5,059,869	\$ 4,672,837	8.3%
Main/Capital Charges	\$ 55,000	\$ 95,337	\$ 148,950	-36.0%
Interest	\$ 85,000	\$ 86,883	\$ 118,188	-26.5%
Late payment penalties	\$ 47,000	\$ 59,582	\$ 54,652	9.0%
Other Revenue	\$ 264,045	\$ 330,602	\$ 366,117	-9.7%
 Total Revenue	 \$ 5,235,545	 \$ 5,632,273	 \$ 5,360,744	 5.1%
 Total Expenditures(including Depreciation)	 \$ 5,311,527	 \$ 5,252,282	 \$ 5,070,149	 3.6%
 NET REVENUE OVER EXPENDITURES		 \$ 379,991	 \$ 290,595	
 CASH BALANCE AT 12/31:		 \$ 8,005,110	 \$ 7,994,284	
 COST OF SALES %:		 47%	 45%	

Fund 210 Ambulance Fund

GL Number	Description	PERIOD ENDED 12/31/2011	PERIOD ENDED 12/31/2012
*** Assets ***			
210-000.000-001.000	Cash	2,249,010.49	2,415,955.44
210-000.000-020.000	Taxes Receivable - Current	1,268,798.14	1,237,767.52
Total Assets		3,517,808.63	3,653,722.96
*** Liabilities ***			
210-000.000-339.000	Deferred Revenues	1,268,798.14	1,237,767.52
Total Liabilities		1,268,798.14	1,237,767.52
*** Fund Balance ***			
210-000.000-390.000	Fund Balance	2,161,120.10	2,249,010.49
Total Fund Balance		2,161,120.10	2,249,010.49
Beginning Fund Balance		2,161,120.10	2,249,010.49
Net of Revenues VS Expenditures		87,890.39	166,944.95
Ending Fund Balance		2,249,010.49	2,415,955.44
Total Liabilities And Fund Balance		3,517,808.63	3,653,722.96

Fund 402 CAPITAL PROJECTS FUND

GL Number	Description	PERIOD ENDED 12/31/2011	PERIOD ENDED 12/31/2012
*** Assets ***			
402-000.000-001.000	Cash	1,726,616.67	1,792,280.11
Total Assets		1,726,616.67	1,792,280.11
*** Fund Balance ***			
402-000.000-390.000	Fund Balance	1,595,596.82	1,726,616.67
Total Fund Balance		1,595,596.82	1,726,616.67
Beginning Fund Balance		0.00	1,726,616.67
Net of Revenues VS Expenditures		131,019.85	65,663.44
Fund Balance Adjustments		1,595,596.82	0.00
Ending Fund Balance		1,726,616.67	1,792,280.11
Total Liabilities And Fund Balance		1,726,616.67	1,792,280.11

# Statutory Duties of Clerk

- Custody of all township records
- Records/maintains meeting minutes
- Publishes meeting minutes
- Keeps Oath of Office Book
- Responsible for all meeting notices
- Keeps/maintains all voter registration files
- Conducts elections – state, local, federal, county & school
- Keeps/maintains Ordinances and legal publications
- Prepares warrants for all township checks – 1 of 3 approving invoices for payment and cosigns checks with Treasurer
- Appoints a Deputy Clerk
- Others – prepares financial statements, delivers tax certificates to county clerk



# Additional Functions of Clerk's Office

- Zoning Board of Appeals and Planning Commission meeting minute preparation
- Maintains all standing and special committee minutes
- Maintains all cemetery records
- Collects and maintains historical documents both legal and otherwise for the Township
- Serves as Township switchboard
- EATRAN token sale site
- Maintains Township vehicle records
- Maintains recycling grant data, prepares grant reports and the monthly newsletter
- Review and accept Passport applications
- Maintain postage meter and prepare monthly reporting to the accounting department
- Process incoming mail for all township departments
- Establish Street Lighting Districts
- Commission and Board Seats – track seats and applications
- Public Awareness – magazine articles, website and new resident pamphlet
- School and Community Education
- Licenses – vendor, entertainment and amusement.

# Clerk's Office Staff

- **Tracy Ruiz, Deputy Clerk**
  - Coming up upon her 35<sup>th</sup> Anniversary of Employment with Delta
- **Heather Bouck**
  - Coming up upon her 8<sup>th</sup> Anniversary of Employment with Delta
- **Anne Swink**
  - Just celebrated 33 years of service with Delta

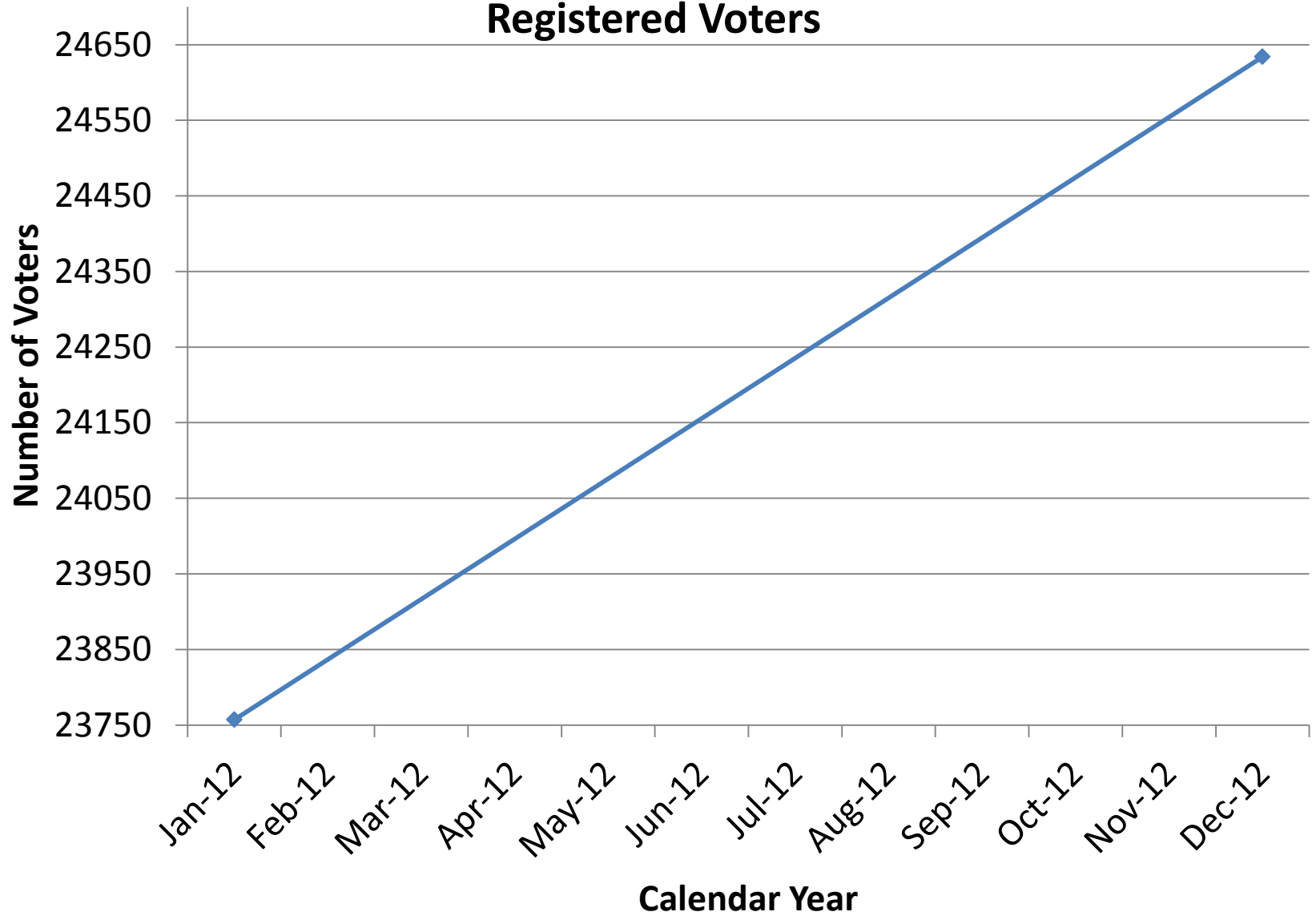
# Clerk's Office – Field Trip Visit



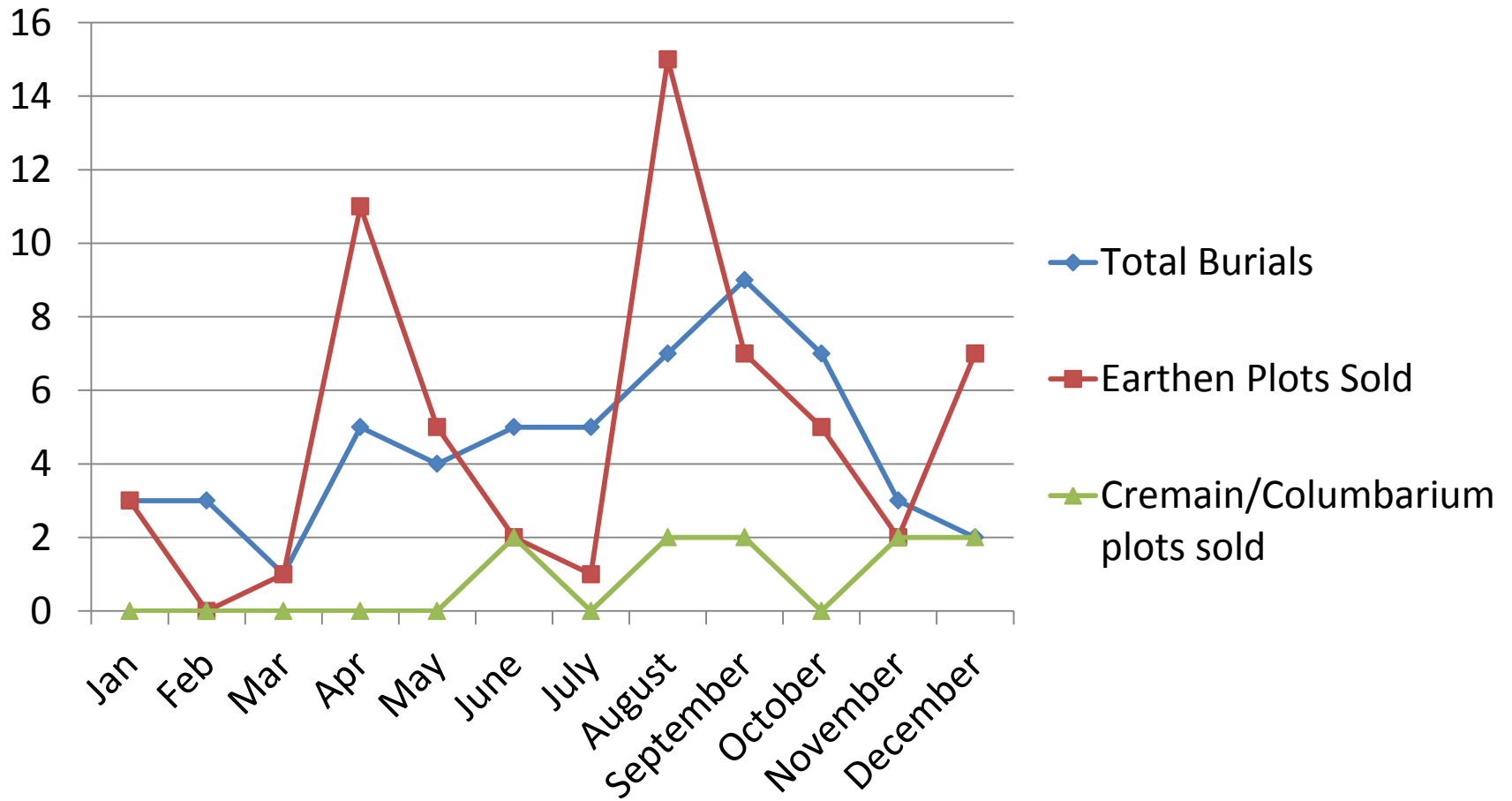
Clerk's Office

# Statistical Information

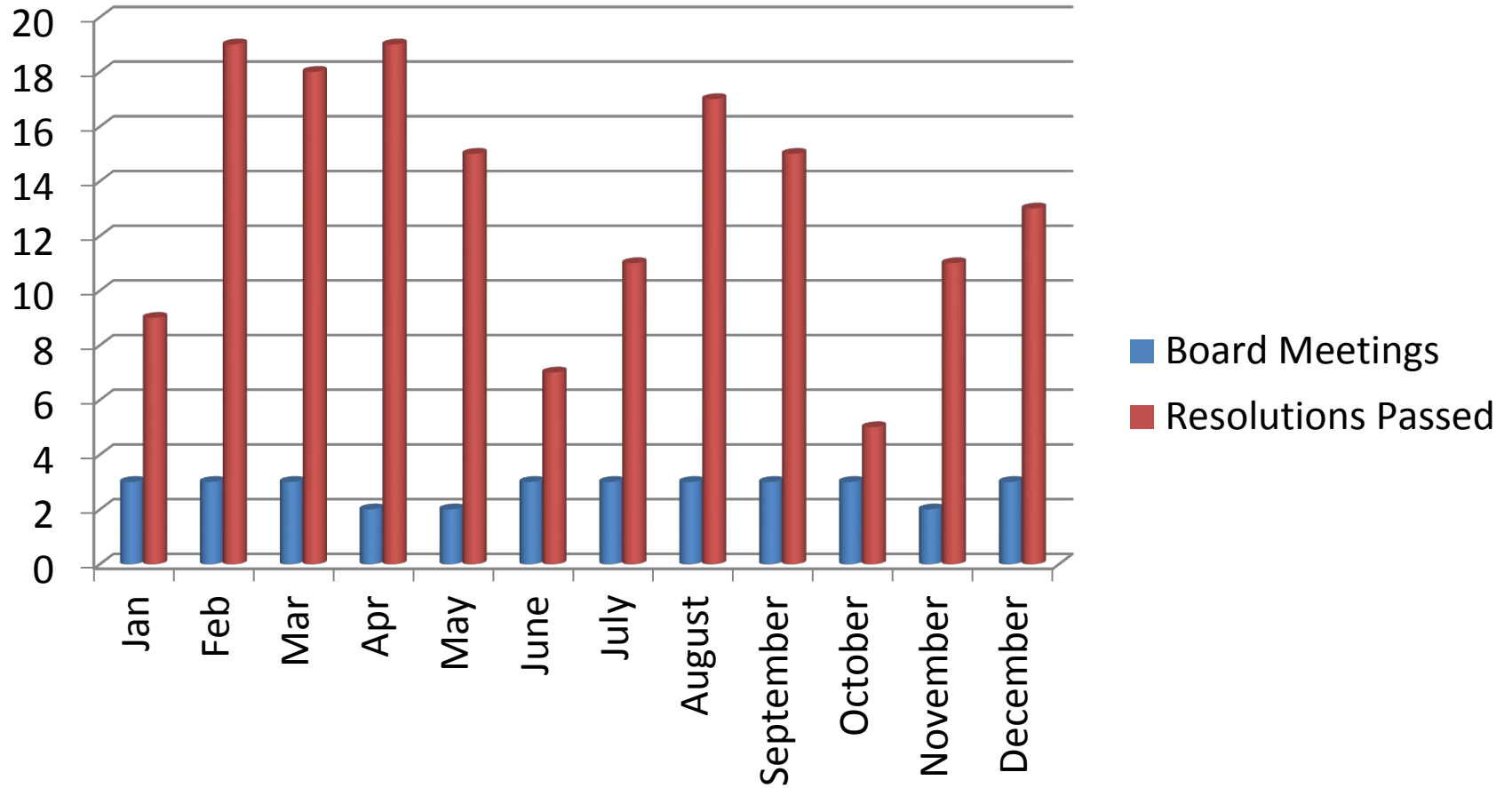
## Registered Voters



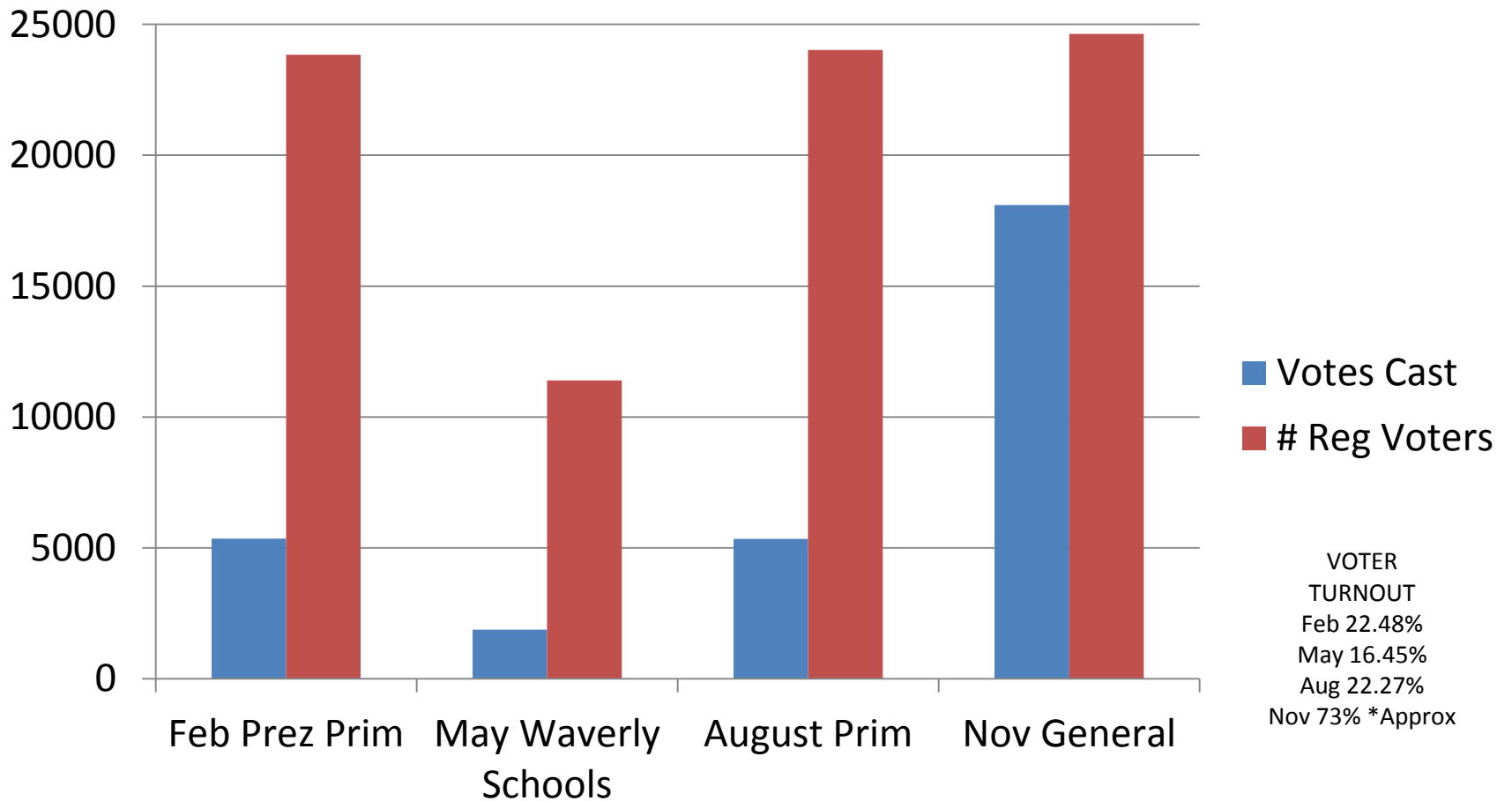
# Cemetery Statistics



# Board Activity

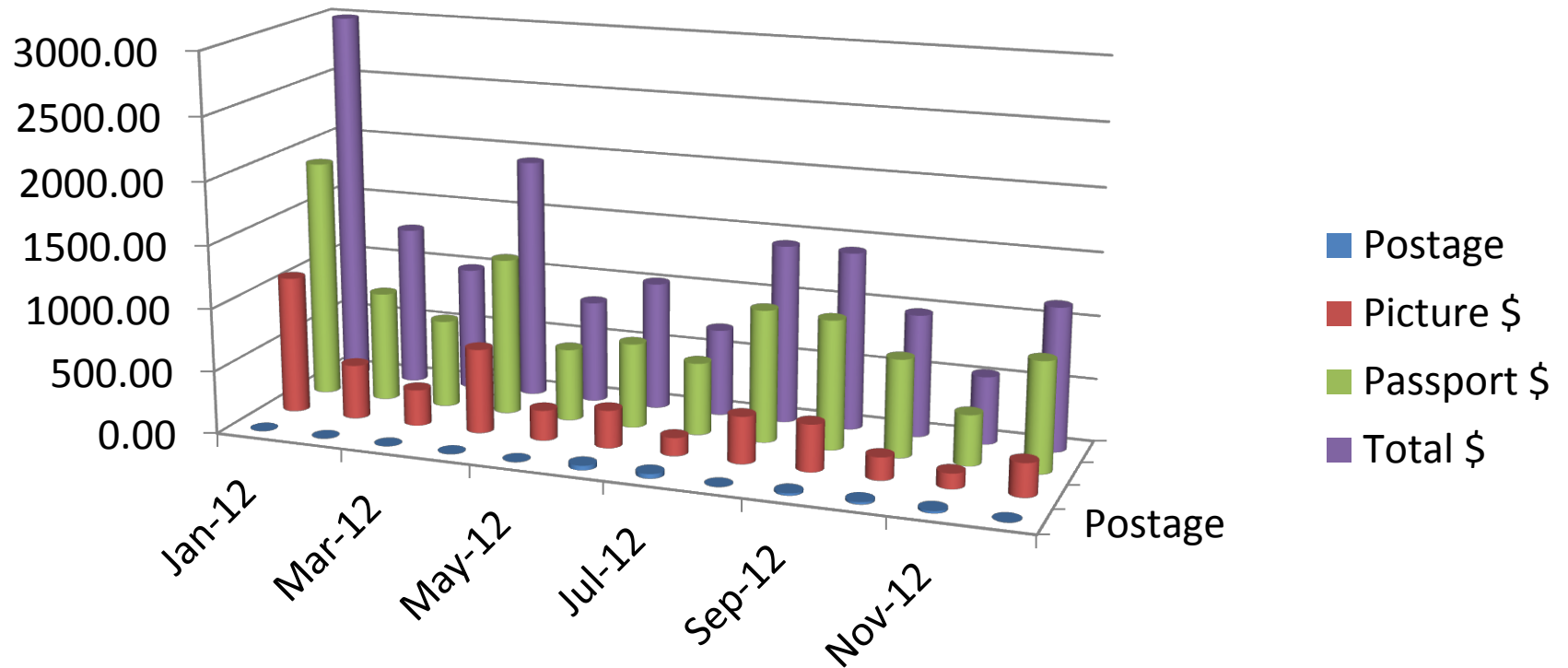


# 2012 Elections

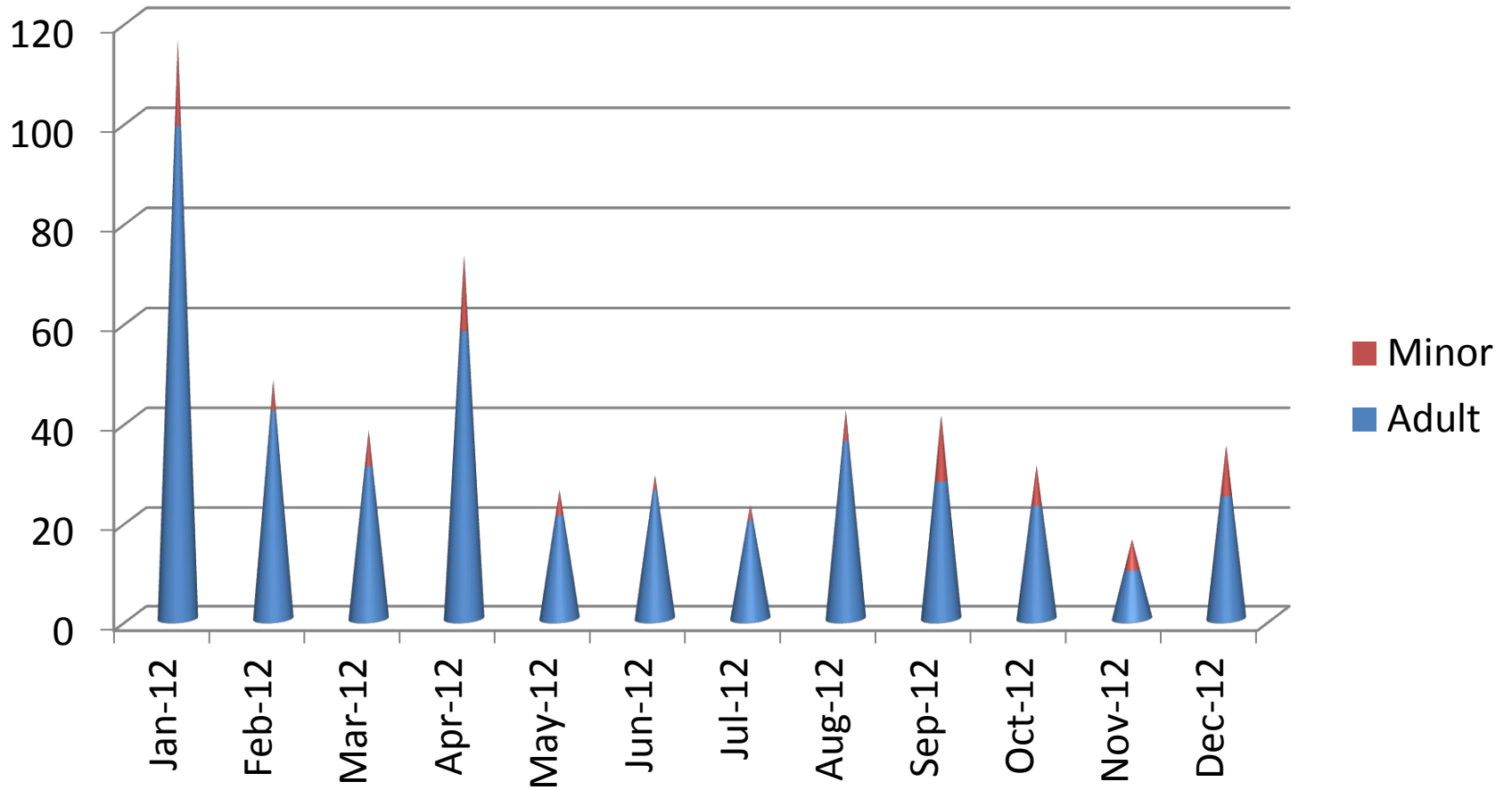




# Passport Revenue



# Passports Processed



# OTHER

- QUALIFIED VOTER FILE –
- RECODIFICATION –
- LICENSING— 7 total including vendor, amusement and entertainment
- RECYCLING GRANT APPLICATION—
- REDISTRICTING –